List of Patents filed with abstract

1. **Design and modeling of vermicompost sieving machine**

Abstract: Vermicompost is a valuable input for sustainable agriculture and waste land development. It provides a sieving machine which helps to improve the rate of sieving, sieving efficiency, man-hr requirement, ease of operation, cost of sieving etc.

2. **Design and Modeling of Wheat Reaping Machine**

Abstract: Designed machine is wheat Reaping machine and is used for farming condition in India. Focuses on design of main cutter of the machine. To run this machine, power transmission system from the engine is employed.

3. **Design and modeling of Cotton Picker Cum Boom sprayer**

Abstract: Invention provides a new technology in the field of spraying pesticides and cotton ball picking mechanism. Purpose is to develop a machine which is low weight ergonomically and can be used to pick cotton bolls.

4. **Design and fabrication of Agriculture Sprayer with weeder**

Abstract: It eliminate problems of farmer and design the equipment for farmers for spraying and weeding operations.

5. **Design and development of economical seed sowing machine**

Abstract: The main object of this innovation is to increasing grain flow uniformity out of the metering devices and improving seed distribution into the soil.

6. **Design, Development and fabrication of light-weight and long range pesticide sprayer**

Abstract: Purpose of this invention is to develop the manual pesticide sprayer, to improve its performance and its range of spray while keeping it light weight.

7. **Photovoltaic cell with concentrating collector**

Abstract: With increasing concentrating ratio, cell temperature goes on increasing and it reduces electrical conversion efficiency. Cooling system is provided to maintain cell temperature to a normal temperature.

8. **Development of Automated Surveying System using GPS**

Abstract: Rover transmit the data wirelessly to a ground station, where the data is directly fed to REVIT ARCHITECTURE CAD software through an API (Application process interface).

9. **Air conditioning system with additional condenser**

Abstract: Purpose is to retrofit existing air conditioning system with eco friendly refrigerant.

10. **Reducing charging /discharging time for super capacitor-banks by controlled series/ parallel reconnections**

Abstract: Purpose is to participate in electrical energy-storage for delivering it later, in a controlled manner and to enhance the system-performance and efficiency**.**

11. **Development of Gripping Mechanism for a Prosthetic Hand**

Abstract: Cable and spring mechanism is used to compensate the problem faced by the other mechanisms like weight of hand, backlash in the joint, poor function of existing artificial hands.

12. **Wireless Electricity Generation using Mobile Network Radiation**

Abstract: Invention comprises of conserving the energy by means of the simple yet, ingenious circuit, with the help of this circuit, electricity can be generated from the signal radiations present in the atmosphere

13. **A Real time Cognitive Assistance for visually Impaired**

Abstract: Purpose is analyzing and estimating trajectory of an object in an image plane as it passes through image sequences and subsequently integrating in a common platform all the data acquired from the environment from different sources as artificial vision system, GPS system and to modify it with Neural network classifier.

14. **Mind Controlled Application using Electronic Circuits especially for wheelchairs Abstract:** Purpose is applying analyzed signals for Mind Controlled Application. Some of other applications include detection of thought pattern, detection of encephalic imbalance & mind controlled robots.

15. **Design of cost effective EEG System**

Abstract: Purpose is to detect thought pattern and develop mind controlled appliances.

16. **Circuit extraction and testing from prebuilt PCB**

Abstract: Invention aims to develop software which performs the actual circuit extraction. Software works on the images fed to it and then reveal the errors in the circuit.

17. **Battery and supercapacitor combination in electric bike**

Abstract: Supercapacitor module provide the high current required during starting and acceleration, and eventfully help increasing lifespan of battery. Secondary source, like regenerative braking or a small solar panel module can be availed onboard so as to charge battery/ supercapacitor.

18. **Modeling the suitability and applicability of Ultracapacitor on regenerative braking and powering of electric cars.**

Abstract: Purpose is to device various ways in which a Super capacitor can be used to improve the performance of electrical vehicles.

19. **Fabrication of Algae breeder-Photo-bioreactor Extraction System**
Abstract. Developed to incorporate advancement of biofuel as alternative fuel.

20. **Design and Fabrication of Road Dedusting System for Four Wheeler**

Abstract: Deduster system works by creating suction in the inlet chamber by using suction fan and this dust loaded air passes through the filter bags where the dust gets filtered and remaining fresh air is passed through the outlet chamber.

21. **Design and development of an anti-collision device for two wheelers**

Abstract: In the case of two wheelers, which is a major auto sector in India, these systems haven't even been implemented. Presently, such systems have not been considered for two wheelers owing to its high cost and complexity.

22. **Selection of capillary tubes in refrigeration appliances**

Abstract: A number of refrigerants, pure as well as blends has been considered all over the world as retrofit refrigerants. Purpose is to optimize capillary tube dimensions.

23. **Intangible Human Interface**

Abstract: Designed for replacing the mouse with dedicated hardware so that the functions which mouse can perform, now can be performed intangibly. Facilitates inputting data by just executing bare-handed gestures in front of a portable device.

24. **Translation of Japanese printed documents into English language with touching character problems**

Abstract: Invention deals with the character segmentation method for Japanese printed documents.

25. **Design & Fabrication of Groundnut harvesting and Cutting machine**

Abstract: Invention simplifies the whole process of groundnut harvesting and cutting and saves time as well as labor cost. It works manually and do not requires any fuel and external electric supply.

26. Design & Fabrication of Groundnut harvesting and Cutting machine

Abstract: Invention simplifies the whole process of groundnut harvesting and cutting and saves time as well as labour cost. It works manually and do not requires any fuel and external electric supply.

27. Magnetic Wall Climbing Device on ferromagnetic surface

Abstract: Developed with the objective of replacing human operators in the accomplishment of essential safety critical tasks in hazardous environments such as nuclear reactors, petrochemical plants, power stations etc..

28. Secure Recognition Based Graphical Password by Watermarking

Abstract: It makes password sharing difficult, thus making system-generated password difficult to be sent to a human user.

29. Design and fabrication of bricks handling system

Abstract: Used for automatically loading and unloading grids of bricks from a truck to the ground level without any damage. Suitable for easy handling, storage, and shipment.

30. Industrial / Home Automation using Transformation Robot

Abstract: The aim of this innovation is to design a multi tasking individual robot on many platform. Machine is developed to metamorphose not just into a table, jack but also into a plethora of different shapes.

31. Energy Generation from Ceiling Fan –A ultimate Energy Conservation

Abstract: Purpose is to generate the electricity from the rotating fan without disturbing its basic utility. Care is also taken that the extra electrical power required for driving the ADD ON should be less than that of electrical power generated.

32. Hydrocarbon refrigerant blend for improvement in COP

Abstract : Hydrocarbon and its blends can replace R-134a in the existing system without any modification. Lower energy consumption compared to R-134a.Better COP in comparison with R-134a.

33. Rectangular Fluidized Bed Dryer with Triangular Wavy Walls

Abstract: Purpose is to developed fluidized bed dryer by the use of rectangular type chamber with triangular wavy walls to improve heat transfer rates.

34. Sensor Based Intelligent Home Security System with Composite User Activity Recognition

Abstract: The sensor based intelligent home security system has been developed for human activity recognition which is an important parameter in the home security application.

35. Illumination & Skew Correction for Scanned Document Images.

Abstract : A scanned image suffers from various scanning artifacts known as scanning shading and dark borders noises. A shading image can be extracted using

image reconstruction methods. It can restore a desired shading-free image and yield a good quality illumination surface. Finally, this would make it very appealing to non-expert users in real applications

36. Multilingual Number Image Interpreter

Abstract : In India people speak different language, and they also used different ways to write number text. This method solves the problem of reading number text from one language to another language. It is part of Natural Language Processing (NLP). Perform translation on number text by using rule based approach, so that it will convert number text from one regional language to another regional language.

37. Wearable Epilepsy controlling Device

Abstract : Embedded system device is to predict the epileptic seizure prior to its occurrence and administer the brain abnormality in real time. Hence this wearable Epilepsy Seizure Monitoring and Controlling Device collects the real time Sensors signal (AgCl EEG brain & Heart Pulse rate) from the human subject (epileptic disease patient) and do analysis of required parameters, decision declaration of Epilepsy stages (pre-ictal, post-ictal & inter-ictal), controlling (through Anti-epileptic drug injection system) and automated alerts to health care providers via GSM module

38. EEG Biomarker Dementia Detection Device

Abstract : Dementia is a disease related to brain. A device has developed which will comfortably get fit on persons wrist and would continuously take the synnuclein values of person's brain. Tthis device is one of the best suitable for early diagnosis of Dementia [Alzheimer's disease type].Additionally, the patient's data is also continuously transmitted to the doctor via micro GSM, so that the doctor can take necessary steps in case of any emergency.

39. Portable Thermographic system for detection of Rheumatoid Arthritis

Abstract: A developed portable embedded system is used to detect Rheumatoid Arthritis with the help of thermal camera images using innovative neuro-fuzzy algorithms and predict Arthritis disease with parametric functional analysis [native infected region, status, level].

40. Implementation of Multimode Interactive device using Electro-Oculography

Abstract : The Proposed system will detect the variations in electric signal strength

through voltage level near the eye area and generates a signal in order to control the multimode interactive device. Different type of instrumental amplifiers could be used for better results and interfaced with communication devices.

41. Wireless Node Control and Monitoring System for Emergency Ad-Hoc Networks Abstract : In this system a message is transmitted from user to the broadcast station located far away from this dead/forest area through a no. of nodes. These nodes are the message generator nodes data forwarder nodes and the GSM nodes. These nodes are more in number in this particular network.

42. Foot Wearable device for Diabetic person

Abstract : The proposed system is to design and implementation of wearable device for foot disease monitoring where the system will be capable to detect the level of foot ulcers related issues along with daily exercise level monitoring.

43. Configurable Secondary User Network Digital Terminal Equipment

Abstract : This project is based upon the communication for secondary user. For this a DTE will design so that through this DTE secondary user is allowed to communicate.

44. Dynamic spectrum sensing and shearing module

Abstract : This work proposes effective spectrum sensing strategy to identify vacant-spaces in the unlicensed ISM (2.4-2.483 GHz) band. In this method, the use of white space has been done in time domain.

45. Design and Implementation of Hybrid Network-On-Chip Scheme for Minimization of Latency and Power.

Abstract : A hybrid router which combines circuit switching and packet switching with virtual channels for on-chip networks in order to efficiently transfer streaming and best-effort traffics in specific applications. Synthesis and simulation results show that the proposed router has a gain of optimization in latency and average power consumption.

46. Invisible character display using polarization of light mechanism in ATM and customizing security

Abstract : It designed a character display which not only is invisible but also interact able, the contents of that screen will be only visible to the user using the machine through a specialized viewing screen, also the screen will have randomized number patterns which will allow for more security. This technology can be used in various different ATM systems which are in public places to avoid the problem of shoulder surfing; besides ATM this technology can be used as an authorization tool too for access to confidential areas.

47. Automatic Live Score Updation Using Image Processing

Abstract : It proposes an improved algorithm for the automatic extraction of super imposed text in sports video. First, it identified key frames from video. Generally, the super imposed text displayed in bottom part of the image in the sports video. So, it cropped the text image regions in the cropped image which contains the text information. Then it applied the canny edge detection algorithms for text edge detection. Using the OCR tool, the text region image was converted as ASCII text and the result was verified.

48. Automatic Fire Extinguishing System

Abstract : The fire extinguisher finds its applications in rescue operations during fire accidents where the possibility for service men to enter the fire prone areas is very less and also during wars to perform rescue functions. The most added advantage of this fire extinguisher is that it gets turned ON automatically as it detects the fire around its surroundings and extinguishes the fire by moving in the direction with respect to the fire.

49. Kinetogenic unconventional skyablaze

Abstract : Works on three basic system preliminary system of collecting sunlight and splitting it in two parts: sunlight with heat and sunlight without heat,Secondary system absorbs heat from sunlight and detect temperature through thermocouple and transmits through chain of ducts sunlight without heat and sunlight with heat for agricultural purpose like artificial photosynthesis, multistory farming.

50. Design and fabrication of Lemon juice making machine

Abstract : Maximum 18 liters lemon juice obtained once machine is operated. Minimum 1 liters juice can be made once machine is operate. Lemon juice can be preserved for long time due to high quality refrigeration.

51. Tree Transplanter for Agricultural/Nursery Implementation

Abstract : Device to felicitate movement of tress from area of work/development to the area suited for the trees needs. Machine basically uplifts tree from ground and shifts it to new location.

52. Flat Plate Solar Collector Using Concentrating Lens Array and Insert Coils

Abstract : Investigates method for enhancing thermal capabilities of flat plate solar collector. Investigations made to study performance characteristics of solar flat plate collector equipped with coil inserts, parabolic side reflectors and optical concentrating lens array. Aims to improve efficiency and performance of flat plate collector by using both diffused and direct solar radiation. Parabolic side reflectors provided to reflect more amount of solar radiation inside collector to enhance heating process.

53. A clamping system of a wear plate welding machine

Abstract : Used for holding the metal plates of various thicknesses. Pushers are actuated using hydraulic system and vice operated manually.Pushe1 takes wear plate from platform to machine bed and hold wear plate while welding. Water cooling provided from side and bottom surface. Water flows over rollers and minimize temperature of plate.

54. Automatic Fertilizer Injector Machine for Cotton Plants

Abstract: Invention works semi-automatically. Requires only DC power supply. Requires only one operator for process to be done. Takes required power from motion of wheel of machine and battery. Machine has mechanical hand with DC motor operated injector to inject fertilizer around the root of crop.

55. Experimental set up for Reactive power injection on Pai (∏) type transmission line model using firing angle control of FC-TCR

Abstract : Voltage distribution across line length from 0 km(sending end) to 360 km (receiving end) has been observed, which is in reducing trends. Desirable to maintain constant and flat voltage profile. Reactive power support required in line.

56. Web System Framework and Methodology for Making Personalized e-learning Abstract: Novel system framework and method using social networking websites data as context for making personalize e-learning by implementing Ontology and Agent technology developed. Directed to an integrated implementation knowledge extraction system that should only extract quality data which will be relevant to the users .

57. Design Of Atomized Inspection Vehicle For RTO

Abstract :Reduce risk of internal fraud and increase efficiencies by automating process and minimizing operator intervention. Integrated ,end to end chain of trust for the identity and issuance process can be created. Transparent method of granting license to applicant thereby avoiding road accidents caused due to inappropriate driving.

58. Atomized Control Of Switchgear Using Wireless Control

Abstract: Operation of Forward and Reverse operation of drive possible using wireless control. Remote operation convenient to operator and is obtained for wide speed range of operation.

59. Secured Computerized Voting System

Abstract: Consists of voter details, Aadhar Details, security system etc. In voter details module various details like Aadhar details and Biometric Validation of the user are obtained. By using the report Generation module ,results of the election are obtained.

People can poll their votes from anywhere during election time by using their Aadhar Card number and Biometric authentication.

60. Design of Non Invasive Pulse Rate Detector for Detection of Heart Diseases usingLabVIEW.

Abstract: This system would encompass sensors and data acquisition equipment as hardware circuitry and signal processing system based on LabVIEW software intended for successful recognition of diseases. System intends to employ more compact and feasible technique for detection of radial pulse and differentiation between three pressure points than the existing counterparts.

61. Design and Development of Garlic Peeler machine

Abstract: Garlic peeling machine is continuous working apparatus to break and peel whole garlic pods and to obtain output of individual peeled garlic petals. Machine consists of hopper arrangement where whole garlic pods can be fed. Garlic pods from hopper directed to peeling chamber where garlic pods are splitted into petals and they are peeled. Peels of garlic are separated using air blower. Peeled garlic petals separated as per their sizes with help of perforated screen.

62. Design & development of brake test rig for the all disk brake operated vehicle

Abstract: Conversion of one fourth momentum of vehicle at desired speed into speed and mass of highly inertial rotating part. Prime mover used to transmit power by suitable transmitting device which has maximum efficiency in transmitting power to long cylindrical solid object that is connected to highly rotating inertial mass object.

63. Design & development of castor seed Extraction machine

Abstract : Extracts castor seed from castor fruits without damaging them. Machine consists of two major compartments, shelling unit and dehusking unit. Blower and cyclone incorporated to facilitate easy and proper cleaning and separation of seed from the chaffs. Crusher is designed such that it impacts only that much of force which do not damage seed and easily shells castor.

64. Manually Operated Sprayer cum Herbicide Applicator

Abstract: Tricycle sprayer has been developed combining three important operations done in agricultural field; spraying pesticide, spraying herbicide and applying urea simultaneously or individually. Machine is specially intended to work in row crops of farms.

65. Static On-load Tap changer using relay with isolated transformer winding

Abstract : Invention aims to protect domestic or power transformers from over load power by selecting desired voltage on load side. Over voltage problem can be avoided by tapping technique.

66. Foot operated pesticide sprayer

Abstract :Farmer can spray pesticide into field without without engine and without battery. Weight of person creates air pressure by pedestrian with special shoes (Footwear) and can be sprayed during walking.

67. Efficient Biometric Security System for SIM card Allotment

Abstract : Biometrics System for SIM card issue implemented.

Aadhar card & a person's biometrics, which includes Fingerprint Scan and Iris Scan required.

68. Assistive Technique of Mouse Controlled Desktop Navigation for Visually Impaired

Abstract : It offers visually impaired user with facility to access desktop by mouse movements.

It facilitate visually impaired users to have plenary access of their desktop for any desired operations to be performed by them.

Voice aided assistive technique indulges navigation for better accessibility and accuracy by the use of mouse to visually impaired, same as normal user accesses it.

69. Digital Eye

Abstract : Visually impaired people report numerous difficulties with accessing printed text using existing technology, including problems with alignment, focus, accuracy, mobility and efficiency.
A finger worn device that assists the visually impaired with effectively and efficiently reading paper-printed text.

Local-sequential manner for scanning text which enables reading single lines, blocks of text or skimming the text for important sections while providing real-time auditory and tactile feedback.

70. Method for Efficient Regeneration of potential Energy of Waste - water in high rise buildings

Abstract : Invention relates to energy efficient system for generation and production of hydro-electricity comprising of wastewater from high altitude of high rise building floors in staggered manner by pipe.

71. Collapsible fatigue reliever carrier for railway catering Personnel

Abstract : The proposed mechanism designs a trolley having less floor space requirement. The proposed trolley provided with two pair of wheels arranged in a line. This would reduce the floor space requirement for the trolley.

The castor wheel is used as the rear wheel for the trolley as it provides greater maneuverability to the trolley. This would enable the personnel to move through the coaches easily where there are many twists and turns needed. The height of the product is to be kept up to the waist.

72. Automised Control Of Switch gear Using Wireless Control

Abstract : It controls the panel via Mobile/Remote from Distinct Location with the help of wireless interface circuit. Programmable logic controller (PLC) panels are also known as PLC Automation Panel are one of the most important and efficient kinds of control panels which are generally used in variety of electronic and electrical circuit fittings.

73. Foot Wearable device for Diabetic Person

Abstract : The system will be capable to detect the level of foot ulcers related issues along with daily exercise level monitoring. The attached the temperature sensors or pressure sensors are being used to detect infected area. The data of all the sensors are collected in the data acquisition system. Obtained data of the wearer can goes to the
doctor's system with the help of the internet.

74. Design and Development of Garlic Peeler Machine

Abstract It break and peel whole garlic pods and to obtain output of individual peeled garlic petals. A flaking machine for pressing the cloves before dehydration has been designed. A flaking machine for pressing the cloves before dehydration has been designed. The pressurized air from blower is forcing out the dust and skin of garlic in the exhaust pipe.

75. Foot Operated Pesticide Sprayer

Abstract : Provide a foot operated pesticide sprayer which can spray liquid into field without any hard work like handling, without engine and without battery. Reduce effort of the operator for spraying the pesticide in garden and farm.

The application provides foot wear operated spray pump to reduce hand efforts of the farmer.

76. Two Ways Motion Mechanism- Epicyclic Gear Form

Abstract. When gearing meshing is external to external the motion of driver and driven will be opposite to each other. When gearing mesh is external to internal the

motion of driver and driven will be same. The mechanism is basically focused for obtaining Twirling motion i.e. rotates clockwise and counter clockwise in small discrete steps. Here we can eliminate the use of stepper motor.

77. Mobile Fruit Plucker

Abstract: Mobile fruit plucker can be a very crucial device for the agricultural industry.

The working of the drone will be completely by the hands of the farmer himself

through a remote control device. The location of the fruit through the basic The word mobile here means cutting of fruits automatically from the tree itself The cutting is done by the help the camera at the top of the drone operation being performed is of plucking the fruits

78. Reverse tricycle with steering mounted control and reclining seats

Abstract : This motorcycle-based tricycle which is rear wheel drive in which two wheels will be at the front and one wheel at the rear. The reverse tricycle is basically a three

wheeled car designed for handicapped people having no legs so that they can drive the vehicle easily without any difficulty as it is having all steering mounted controls. . A person will have a comfortable ride as there will be support from the back and as the seats are reclining from 90 to 135 degrees

79. Development of Manual cum Battery Driven Tricycle

Abstract : Because of the pollution there are many health

issues which are affecting the people. This tricycle uses the thermal energy of the sun and it is environment and pollution free vehicle As this tricycle is provided with a curved

shape body so it can easily achieved the speed. The main purpose of this tricycle is to travel for longer distance at low speed without the use of any type of natural resources like petrol, diesel etc

80. Reverse tricycle with steering mounted control and reclining seats Abstract : This motorcycle-based tricycle which is rear

wheel drive in which two wheels will be at the front and one wheel at the rear. The reverse tricycle is basically a three wheeled car designed for handicapped people having no legs so that they can drive the vehicle easily without any difficulty as

it is having all steering mounted controls. . A person will have a comfortable ride as there will be support from the back and as the seats are reclining from 90 to 135 degrees

81. Development of Manual cum Battery Driven Tricycle

Abstract : Because of the pollution there are many health issues which are affecting the people. This tricycle uses the thermal energy of the sun and it is environment and pollution free vehicle As this tricycle is provided with a curved shape body so it can easily achieved the speed. The main purpose of this tricycle is to travel for

longer distance at low speed without the use of any type of natural resources like petrol, diesel etc

82. QStand: Text Systematization into Question Template Tool

Abstract : QStand tool has implemented systematization process using Template based approach which is accompanied with Dictionary approach and powerful NLP technique like Maximum Entropy based POS Tagging technique. This tool aims to reconstruct standard flawless question from erroneous input question by removing errors present in the order of the words

83. Smart door mat by using vibrational energy harvesting technique

Abstract : The proposed system has piezoelectric sensors in it which can convert vibrational energy to electric energy with the help of that electricity

produce by installing that device in stair case, parking slot, in military, dancing clubs and etc. Lot of human energy is wasted by walking, dancing, gym in everyday life. Proposed system helps in urgent situation condition which converts human wasted energy into useful electrical energy.

84. Design and Implementation of 3D Symmetric NoC Router

Abstract The aim of the present work is to implement the 3 Dimensional symmetric routers which gives low latency and minimized power consumption. 2 Dimensional routers is having the higher scalability and parallelism, still it is not that much ultimate for future very large scale integration. Hence the 3D NoC will offer low simulation latency and minimized power consumption, higher speed, which is best suited for the very large scale integration.

85. An Intelligent Citrus Fruit Counting System

Abstract : The present invention relates to a system and method for the yield counting and health monitoring of the citrus fruit by using the image processor. Currently, contractors and farmers are used to count the fruit manually. Then the manual counts are used to estimate the harvest. Labor costs are based on per hour labor charge. Labor time is 10 percent more than combine operating time.

86. Design and Fabrication of cauliflower cutting machine

Abstract : It has cutting blades which cut the crop in a rotating type of motion. It runs on engine, this power from engine, is provided through pulley and gear box arrangement to the cutter. A collecting mechanism (conveyor) is provided for the collection of cauliflower to one side after cutting. This mechanism is also powered by pulley arrangement.

87. Design and Development of Automatic Embedded Control System for Production of Spirulina Algae

Abstract : Automatic embedded control system is introduced for the production of spirulina algae. Various environmental factors affect the growth of these algae such as temperature, illumination and pH value. So for the production of these algae . we have to manage these entire factors in accurate proportion. To maintain this proportion the embedded device is going to control the pH value of the algae.

88. Comparative Analysis of C-PTS, WAV-PTS and hybrid DCT Scheme for Reduction

of PAPR Ratio in OFDM Signals

Abstract : OFDM is one of the best modulation schemes for the wireless as well as wired communication. It is mostly used for its advantages such as better spectral efficacy, multipath fading, higher data rate and thus good quality of service. As high PAPR causes the high power amplifier to perform in its nonlinear distortion and hence distortion occurs during transmission of data.

89. Anti-lock Braking System for Fault Estimation and Fault Tolerance Control System

Abstract : The proposed approach improves the performance of a pre-existing ABS system in the field of automation. Fault Estimation and Fault Tolerance Control of discrete time embedded system is used for system state estimation, characterizing the different parameter and detecting actuator/ sensor faults occurred in system.

In this project, anti-lock braking system (ABS) is particularly selected as a discrete time embedded system.

90. Design and Development of Hardware Testing Interface via Custom Script Language

Abstract : Target based testing is one of the important tasks in project development lifecycle. We propose to test embedded system on actual environment where system is to be developed. To do so we propose use of scripting language to re-program each time according to target system. A script, in simple words is a written set of instructions, in a certain known and recognized format, and consistent with the standard set of rules for the language in which the script is written.

91. English to Marathi Transliteration

Abstract :SMS has provided us with a capacity of conversing with each other in minimal number of words. This will cut short of words has created new short slangs and a new SMS lingo. This has reduced efforts and time consumed for typing complete words also it has cut cost. It is easier for a person to understand the messages or text if it is in his/ her native language script.

92. NewsoCon: Context Based News Headline Construction Tool

Abstract : Usually long news article contains large amount of information. Many a times due to lack of time people are unable to read whole news article.

Therefore, headline is required in order to get complete idea of news without reading whole news article. NewsoCon has implemented for context based news headline construction.

93. Development of Cloud Based Mobile Gadget

Abstract : The Cloud Based Mobile Gadget will have universal centralized system which will give access to information anywhere independent of operating system platform.

This will be highly secured with unique technique for identification of mobile gadget. This gadget is work on various mode of communication including voice, image, video, etc.

94. Modified Computer Cursor Control Device using Eye Pupil

Abstract : Developed eye pupil tracker system allows special care people to control modified computer cursor for drawing and typing using developed graphical

user interface. It uses a modified PS3 eye camera and IR illuminators along with the specified software to track the user pupil. Basically pupil is track using brighten and darken effect along with the Kalman filter technique.

95. TMT Rod Bending Machine

Abstract : This project is to bend the rod at the specified dimensions which is used at any construction site. Rod is an important reinforced element which acts as a shear reinforcement. Presently, rod is made manually, which suffers from many drawbacks like lack of accuracy, low productivity and resulting into severe fatigue in the operator. In manual rod bending, operators not only subjecting their hands to hours of repetitive motion, but in many occasions it results into several musculoskeletal disorders (MSDs).

96. Optimal Solution for Dense Linear Algebra Problems in Multi-Core Programming Abstract : Parallel Computing is a popular way of achieving high efficiency since parallel applications can be mapped on many cores and the clock frequency
can be lowered. Proper core management on multi-core systems

and lowered dependency impact for inter core data computations is the key of near to perfect parallelization. Data as well as process dependencies are to be considered

97. Ultra-low-frequency low-power oscillator using an ultra-capacitor and an advanced

flywheel

Abstract : Oscillators are based on periodic exchange of energy between two systems. In Electrical sciences, it has been known ever-since that energy in electric field of a capacitor and energy in magnetic field of an inductor can be exchanged at resonant frequency, under certain favorable conditions. Broader interpretation of is "Energy should change its form (or medium) periodically".

98. Arduino Based Solar Panel Array Output Optimizer

Abstract : In this invention a Solar panel array output optimizer is used to stabilize the voltage level. Due to shadowing on the panels, there is a decrease in the output level of the voltage which in turn results in the substantial decrease in the power level of the output of the panels. So, to combat such problems, a dynamic arrangement of the solar panels by accurate sensing of the voltage levels along with intelligent switching of the panels has been done.

99. Vehicle to Grid Power

Abstract : Modern solar powered Hybrid Electric Vehicles are in a position to work more effectively as co-generators for the grid. Hybrid vehicles combining renewable-energy-sources and bio-fuel-powered system can now add to the green power co-generation because our patent propagates that proper scheduling involving the roles of Heavy-duty battery and mighty Ultra-Capacitor will lead to pumping much larger amount of green-energy to the grid.

100. Design and Development of Sonar based Robot for localization and mapping of potentially unsafe areas

Abstract Present invention provides a design of intelligent autonomous robot for inspection of potentially unsafe areas. The important function for exploration of area

is dimension measurement and mapping. Also, considering safety, there is need of inspection of some places like caves for mining applications, without intervention of human workers. It also aims at graphical representation of scaled down outline model of actual space in which robot is allowed to move.

101. Design, Development and Fabrication of Linseed Thresher

Abstract : Linseed thresher machine is a simple machine. The basic idea regarding linseed threshing machine is to obtain fresh and pure linseed with high quantity

and great quality with less efforts, high quality output is our aim.

It is easy to operate and portable machine. It is a safe process there is no chances of accident.

102. **Ultra-Low-Frequency Low-Power Oscillator using a Charged Ultra-Capacitor Abstract** : Its aims at developing a different kind of authentication system which uses an USB key with a single push button on it. By entering the password and unlock the computer/hardware system which is been locked using push button. It is used the concept of binary Codes.

103. **Ultra-low-frequency low-power oscillator using an ultra-capacitor and an advanced flywheel**

Abstract: Oscillators are based on periodic exchange of energy between two systems. In Electrical sciences, it has been known ever-since that energy in electric field of a capacitor and energy in magnetic field of an inductor can be exchanged at resonant frequency, under certain favorable conditions. Broader interpretation of is "Energy should change its form (or medium) periodically". Taking this logic further, a question to be answered is: "Whether an electric-field and a mechanical system can exchange the energy periodically?" Our answer to this is "YES". Ultra-Capacitor and Advanced flywheel fulfill this expectation. These two have to be brought in action in an innovative manner. A simple method to do this is the crux of this application.

104. **Biocoal cake making machine**

Abstract : The system that we proposed is used for manufacturing of biocoal cake.

The raw material is first crushed by means of two toothed rollers which are driven by an electric motor. These crushing rollers crush the raw material in uniform shape and size. The powdered raw material from crusher is carried down by gravitational force and comes out through bottom of roller and carried towards screw conveyer.

The screw conveyer functions to carry forward the powdered material towards the die. The Powdered material accumulates to the compression zone where compression takes place as the material continues to come there which results in compression of material and bind together by itself and comes through a fixed die in the form of biocoal cake.

The purpose of die is to shape the biocoal and to provide an outlet for biocoal cake. This project is to design and manufacture a prototype of an automated machine which shall be able to prepare a biocoal cake made from the agricultural waste products such as Saw dust, Wheat straw, Bajra cobs, Forest leaves, etc.

105. Old Age helping system

Abstract : The purpose of this system is to provide a user friendly set of functionalities that are easy to navigate and at the same time provides sufficient and updated information about the old person.

Developing such a system which will work in Emergency, and will record & report emergency in real time.

System should work automatically and not require any human interference in terms of manually typing message or making a call of Emergency to report it.

106. RTO Management System

Abstract : The system can provide a login page, in which the user can login the app and use the further options. Person or a user used too type the user name and second option use for type password and click the login. Then the user goes to second page at which it can see the further options where he can use and manage the documents. Where he can save the documents and verified by the legal authority. The main objective is to save the time and man work.

107. I-Access Via Li-Fi Technology

Abstract : The transmitter of the proposed system is constructed using visible light LEDs, in which current fed to the LEDs is modulated and encoded with audio information or messages. The audio system provides audio signal transmission in a free space optical link. The receiver, combined with an ear jack, is located at some distance from the transmitters. The handheld receiver is designed to demodulate the optically transmitted audio information and reproduce the messages with the ear jack.

108. Design and Development of Nagpur metro App

Abstract : The main purpose of this application is to let the people of Nagpur avail and access the useful information provided by the government in an efficiently. Different modules of project which includes Route, fare and distance calculation, progress & feedback section.

With the growing awareness and economic activity, it is necessary to plan for the infrastructure development so as to support the growth of the city.

This App will include the listed features that would be beneficiary for all the travellers.

IOT Based Wireless Garbage Management System

Abstract : This system can detect the level of one or multiple dustbins across a predefined area and transmit the data wirelessly through a local LAN.

The data can then be accessed by authorized personnel who can determine the correct time to empty the wastes.

The system is divided in three parts: information generation layer, information transmission layer & information processing layer.

109. Real Time Application for Green Bus Transportation System

Abstract There is no such application for the city buses to book an online ticket.

It takes a lot of time for the passenger to purchase a ticket manually.

Many passenger's don't purchase a ticket and travel for free.

The major drawback of traditional approach is that there is a major problem of maintaining the accounts and keeping a track on all the money collected. Save the manpower.

111. Automatic Leafy Vegetable Plucker Machine

Abstract : Prototype model performance will be mainly depend on the functioning of the two robotic arm which will perform the task and have a webcam for image processing. Firstly the leafy vegetable will be placed on the wooden board

Then picking arm will receive the indications of those vegetables, it will start its process of picking up the vegetable stem as soon as the arm have picked the vegetable up the image processing will be undergone and the second arm will pluck the appropriate leaves from the stem of vegetable the remaining waste or unwanted part will be thrown away by the first arm itself.

112. Sign Language Vocalizer for deaf and dumb

Abstract : Model detect all the gestures of deaf people and convert it into voice and also can display it on LCD screen by the use of Arduino MEGA controller to interface all of the sensors and speech synthesizer. Basically data glove contains two types of sensors flex sensor and accelerometer as a tilt sensor. When a speech-impaired person speaks to a normal person, the normal person finds it difficult to understand and asks the deaf dumb person to show gestures for his/her needs. This creates a gap between common people and deprived ones.

113. Design and Development of tiles and roof sheet making machine by using fly ash and recycled plastic wastes

Abstract : The project aims at the innovative idea of producing tiles and roofing sheets by taking the input of waste materials. The idea is to design and develop a machine which takes in plastic wastes and fly ash as raw materials in optimized quantity, melts the plastic wastes, mixes both the materials and then moulds them into required products.

This will open up a new method of producing tiles and other similar products which are less complex, low on cost, durable and easy to manufacture.

114. Water Quality Monitoring System using IOT

Abstract : To engrain the safe supply of drinking water, the quality should be monitored in real time. Hence the novel approach based on IOT has been designed to monitor the water quality. The quality of water mainly depends on turbidity, conductivity, temperature parameters. The designed system uses TMP36, turbidity, conductivity sensors to monitor the quality of water. Arduino processor is used to process the sensors output and transmitted it remotely using WIFI module ESP 8266.

115. Automatic Challan System

Abstract :In this system, the special image processing tools are used to detect the vehicle (objects) in the image. If any vehicle is detected then it will send the signal to nodal server to take an image from the camera and image processing block will try to recognize the Number Plate and issue a challan to the corresponding owner by updating the details in the central system. An automatic challan should be fined if anyone breaks the signal

116. GSM Based Bank Locker Security System

Abstract : Bank locker security is important for everyone who uses it. Many times we lost or forgot to carry the key of our bank locker. In these cases it gets really difficult to open the bank locker.

Main concept behind this project is of a bank locker latch opening using two passwords which are entered through SMS and keypad. Each bank locker will have a GSM modem
connected to it. When owner of the bank locker wants to open the locker then he/she has to sends a password through SMS.

If contents are correct then it will enable the keypad to enter second password. Now user has to enter second password using Keypad. If second password is correct then system allows user to access locker. We have provided a DC motor which will operate when both passwords are correct.

Buzzer will be turned on if any one of two password is wrong.

Stealing can be significantly reduced through proactive management techniques that stress the implementation of rigorous project specific security plans.

117. VBAT(Voice Based Automated Transport) Enquiry System for Visually Disabled, “Drishti”

Abstract: This project helps us for getting the information easily related to metro. This system also help the visually disable people to take out tickets. It also tells the information of the metro station such as no of Platforms, how to reach to the Platforms, etc.

This system help us to enquire easily as well as getting tickets easily through voice commands.

Machine will initiate the communication with the user, the machine will ask for the preferred IVR language.

118. Design of an inductor smoothly variable over its full range, responding to an Analog or Digital command

Abstract : The proposed system deals with design and fabrication of a smoothly variable inductor required for functioning of variable-frequency tuned oscillator. Electrical machine frame with magnetic-circuit-saliency on stator as well as on rotor is required. Preferably, it should be a two-pole machine, for a simpler and more effective system. Crux of the operating principle is that inductance is a function of angular position of the shaft.

119. ISM band Portable Channel strength indicator

Abstract : The principal of this method is find power of the scanned frequency spectrum and compare the power with the predefined set threshold .Depend on power calculated the availability of vacant channel is determined. The availability of vacant
channel is depend on the power of the scanned frequency spectrum The decision is made by comparing the resultant power of scanned frequency spectrum with the threshold .Thus after comparing with the threshold we are able to detect the vacant channel in the frequency spectrum.

120. Indexed ISM band Transreceiver Antenna Module Controller

Abstract: The project is about to make indexed communication antenna for wireless secure data transmission. To make encrypted data within free band of ISM.To make handheld device with low cost application for free communication.

121. Design & development of rice transplanter machine

Abstract : Primary object of this invention is to develop a new mechanism for the manual rice transplanter to generate production of rice planting so as to enable the

operator to cover larger area of field with lesser efforts. Machine light-weight and comfortable to use and easy to maintain. The ultimate objective is to keep the apparatus affordable for the operator with an added advantage of improved performance

122. Android Based Grass Cutter Robot

Abstract : The system described in this report has to take into account different aspects such as motion, speed, direction of travel, maintain motion in a straight line, re-alignment in case of going off track, determination of when and where to turn, amongst others.The robot is expected to maintain constant speed around the garden area.

123. A reconfigurable FFT/IFFT processor for OFDM system using advance algorithm Abstract : Improving speed of processor by using Vedic multiplier in terms of less latency.

Increasing working frequency by using pipeline architecture. Making processor suitable for fractional, signed, real and imaginary numbers. Achieving high precision in the results using single-precision floating point multiplier.

Reducing latency and for increasing operating frequency sorting algorithm is used.

124. LabVIEW based Implementation of Image Denoising Algorithm using Wavelet Transform

Abstract : This project is about to remove or minimize the noise as much as possible while preserving the fine image details like edges and curves at the same time.

To improve the PSNR of the image while keeping the MSE low for clear image. Making it time efficient with high accuracy.

To obtain comparison among the algorithms implemented previously on MATLAB and proposed algorithm implement on LabVIEW.

125. Automation and Control of Multiple Robots for Industry Application

Abstract : This project is about to develop a multi-robot system based on Swarm Intelligence principle which can replace the manual efforts and avoid injuries while handling hazardous chemicals & heavy loadings. Swarm Intelligence is based on

intelligence and movement of the swarms for robust optimization. For solving the problems Swarm Intelligence uses the concept of social interaction birds, humans or insects. It consists of many particles (robots) that constitute a swarm looking for a best solution by moving in the search space.

126. Cascaded thermal cavity receiver for parabolic concentrating collector for heat recovery

Abstract : The primary object of present invention is to reduce convective heat loss from existing cavity receiver by cascading tube configuration of the existing design. Further object of present invention is to assess this convection heat loss and subsequently take corrective action to improve the thermal performance of the cavity receiver.

127. Salinity gradient solar pond for enhancing heat extraction

Abstract : Enhancing the productivity of solar still by extracting heat from gradient layer and storage zone of salinity gradient solar pond.

Extracting heat from lateral and longitudinal heat exchanger from salinity gradient solar pond. Further object of present invention is to enhance the productivity of distillate output from solar still by extracting heat from NCZ and LCZ of salinity gradient using lateral and longitudinal heat exchanger.

128. Spell-in-Air: Finger-Spelling in Air Recognition System

Abstract : This model about to find the solution for communication in noisy environment like railway station. To find a solution for smart systems which do not allow a text input through mouse, keyboard or joystick. To find a solution for teaching alphabets and numerals to small children in teaching learning process.To find a solution to communicate with deaf and dump people.

129. SignoSpeech – An Assistive System for Deaf & Dumb

Abstract : Making an interpreter for communication between deaf - dumb and normal Recognizing gestures by hand shapes, body orientation & facial expressions

Use of different language technologies to convert mere sign words to correct meaningful sentences. Educating Deaf & dumb. Designing sign language interpreter for web based
& mobile based applications.

130. Dynamic Cluster Based Real Time Scheduler in Multi-Core System

Abstract : Developing dynamic task allocation scheme for multi-core system Developing dynamic clustered real time scheduler for multi-core system Reducing overheads of hybrid dynamic clustered real time scheduler for multi-core system. Developing resource synchronization protocol for hybrid dynamic clustered real time scheduler for multi-core system .Enhancing reliability in hybrid dynamic clustered real time scheduler for multi-core system.

131. . Pareto-Optimal Green Consolidator for Cloud Datacenter

Abstract : The project is about to Optimizing consumption of computing resources in a networked computing environment

Identifying the set of supporting sub-resources based on demand to serve the request from client of the networked computing environment

Analyzing the workload distribution on set of computing resources in the networked computing environment.

132. Hybrid "Battery & Super-Capacitor"-based Efficient Electric Vehicle drive with regenerative braking

Abstract : A two quadrant buck and boost dc to dc converter controlled drive with permanent magnet DC motor has been suggested.

Buck converter operates during motoring and acceleration mode and boost converter along with the super-capacitor and the battery combination.

The battery will provide power directly to dc motor through buck converter.

During deceleration period, bikes are able to store braking energy of motion in to electrical energy through boost converter. During braking operation, the dc-machine works as a dc generator.

133. Three-phase single switch PWM controlled Induction motor drive

Abstract : Techniques make use of single controllable switch with high frequency PWM control. With this technique stator voltage is controlled but the frequency remains unchanged. The application of this technique may be useful in blower motors & ID fan control.

134. Single Switch Improved Power Factor High Frequency Switched Single Phase Induction Motor Control for Fan and Blowers

Abstract : Low power Single phase Induction motors are widely used for domestic utility fan motor applications. Drawback that has been removed is low torque oscillations at lower speed with the help of high frequency switching with capacitor across motor terminal as freewheeling

135. Handwriting I/O System

Abstract: Finding solution for people who do not understand the unstructured Handwriting.

Finding the solution for people for understanding the small children's hand writing. Using for teaching purpose.Merging the alphabet. For Sequencing and Re-merging words in-order to create meaningful word Finding the solution for reading the handwriting for other people.

136. Power quality assessment of Space vector based Static synchronous Series Compensator (SSSC)

Abstract : This project is about Power Electronics converter which provides solution to some power quality problems and they also generate some power quality issue such as harmonics.

To reduced the harmonics inserted by series device (SSSC), space vector based firing scheme is applied to fired the voltage source based SSSC.

FACTS controllers are used to improve the power transfer capability of transmission systems.

137. Harmonics reduction by Space vector based Static synchronous compensator (STATCOM) in transmission line

Abstract : Reducing the harmonics inserted by STATCOM, space vector based firing scheme is applied to fired the voltage source based STATCOM.

FACTS controllers are used to improve the power transfer capability of transmission systems.

138. Power quality assessment of Space vector based Unified Power Flow Controller (UPFC) applied on transmission line

Abstract : Power Electronics converter provides solution to some power quality problem and they also generate some power quality issue such as harmonics.

The prototype model of voltage source converter (VSC) based UPFC fired by space vector scheme is unique along with measuring devices. However its prototype model is not available in any literature .

139. . FBAR MEMS filter with high quality factor for RF application

Abstract : A systematic design approach for switchable ladder type ferroelectric filters is provided based on required filter specifications.

A switchable filter is implemented in the form of a BST-on-Si composite structure to control the effective electromechanical coupling coefficient of FBARs.

The proposed design is realized by connecting three series and two shunt FBARs in ladder configuration. In the present work, the filter has been designed for a bandwidth of 270 MHz at 3 dB. The minimum insertion loss of 0.9 dB and return loss of 25 dB are obtained for VSWR ≤ 2 at resonance frequency.

140. Process Flow and Mechanical Modelling of RF Micro-Electro-Mechanical System(MEMS) Capacitive Switch

Abstract : Method of providing minimized steps for development of Radio Frequency Micro-Electro-Mechanical System (RF MEMS) capacitive switch wherein, the invention relates to usage of three steps of photo-lithography for assembling complete structure of the switch.

This miniaturized modeling of the device helps in increasing the yield per wafer.

141. Multi-Language Text Image to English Text Converter

Abstract : Converter Identifying languages of textual data in an image.

Identifying multilingual text i.e. the textual data is written in more than one language. Performing Component analysis of source and target language so that total count of characters is available. Extracting features of Devanagari and English characters separately. Converting Devanagari part of the text into English. Merging the characters. Sequencing and re-merging the words in-order to create meaningful word.

142. Design of an Automated System for the Analysis and Detection of severe vision loss due to Diabetic Retinopathy

Abstract : The objective of this technique is to obtain better results as compared to traditional methods of ultrasound and angiography using digital image processing.

This automated method aims in detection these severe diseases with less time consumption at home along with the classification of the disease with lower in cost compatibility.

Thus the timely diagnosis of the disease can be possible for the patient even at the home with accuracy. Automated Techniques can save time, patient's vision and medical costs.

143. Multiple Fruit Grading Machine

Abstract : The concept is about ddesigning and developing the universal fruit grading machine which can grade all circular shaped fruits based on size.

Minimizing the size of the machine as gradation of any fruit takes place in three types i.e. Small, medium and Big as per size. Minimizing the power and cost required to operate the machine. Reducing the mechanical damage to fruits.

144. An approach for design and development of biocoal cake making machine Abstract : The system that proposed is used for manufacturing of biocoal cake.

The raw material is first crushed by means of two toothed rollers which are driven by an electric motor. These crushing rollers crush the raw material in uniform shape and size. The purpose of die is to shape the biocoal and to provide an outlet for biocoal cake.

145. Design of NOC Based Many Core Parallel Processing Platform and its Application in 4G Communication System

Abstract : Studying the Virtual channel routing in NoC and design using Xilinx software and implement it. Studying the different parameters on NoC i.e. latency, area, throughput & power consumption. Combining large number of processing cores with NoC architecture to have scalability.

146. Design of adsorption refrigeration system from waste heat

Abstract : Development of a global model of refrigeration system to produce a cooling effect with focus to replace the conventional cooling system, powered by mechanical compressor.

Calculating Specific Cooling Power (SCP) followed by COP with suitable methodology of experimentation. To resolve the problem of low SCP and COP,

improvement in the adsorber bed design according to application is an important objective.

147. A Mixer which combines RF signal and LO signal

Abstract: It is applied in military affairs, environmental science, transportation management, disaster forecast, health care, manufacturing and other fields.

The RF receiver and transmitter is the one of the important devices of WSN in sensor nodes. With the fast development of WSN, many RF transceivers are design or this system.

148. Design of Double Gate-FinFET with Parasitic Capacitance reduction using low k spacer

Abstract: 3D-FinFET design with symmetric low k spacer technology on silvaco tcad tool. Reducing three types of parasitic capacitances that are gate capacitance , Fringe Capacitance and Overlap capacitance.3D-device designed having low access time, small delay and low threshold voltage to speed up processing in digital circuits .

149. . Psychosomatic Analyzer System for Academic performance Enhancement

Abstract : Developing a system for monitoring user's psychosomatic health Providing cause and solution over degraded health as well as academic performance Improving user's Academic Performance.

150. A wireless portable device for visually impaired people which converts Devnagari text to voice

Abstract : This module convert printed text into the speech for the visually impaired people.

As all the documents, news papers, books, study materials for higher education are not possible to provide visually impaired person in their braille script.

So we design a system in which the printed text will converted into speech and which will help them to read any type of the text.

151. Design & Optimization of Thermoacoustic Refrigeration System

Abstract : This project is about to Improving the coefficient of performance of thermoacoustic refrigeration system by optimization.Using gas mixture to increase coefficient of performance.

152. . Multi-touch Table Using Surface Computing

Abstract The project is about to design a multi-touch based graphical user interface on surface, which will be used as educational & office purposes, entertainment commodity in hotels, restaurants & retail venues and to develop a multi-touch surface based on the principle of surface computing which can replace the regular and orthodox way of
computing by bringing GUI on the surface and which is more convenient, portable and flexible to use.

153. Industrial Easy Load Transport vehicle

Abstract : The Project integrate with the Mat lab & Kinect sensor, the ordinary robot to implement body gesture control experiments by tracking gesture of an operator.

For tracking real time gesture recognition we used MATLAB as a Software interfacing with kinect sensor for image processing.

The development of the Kinect sensor produced by the Microsoft Company does speed up the elaboration of gesture recognition. The recognized gesture command is then used to control the action of a robot.

154. Electricity generation using exhaust gas of vehicles

This is method used for generation of electricity using vehicle exhausts gas wherein mechanism of axial high pressure turbine and backward curved blades with an electrical generator comprises of turbine, dynamo and silencer.

155. Method for improvement of efficiency of three phase induction motor

Abstract: The objective of proposed project is to make efficient drive with improved and controllable power factor with less complexity of control. The scheme provides soft starting and speed control of induction motor with power saving. The project is made for driving induction motor with extinction angle technique which allows induction motor to

operate at high power factor from lagging to leading or unity (0.99) for any controllable speed.

156. IT based Assistive Device for Police to Catch Chain Snatcher

Abstract: Using this application when chain snatching incident occurs the smart system will capture the images of the person and the bike number plate after pressing the push button. Also by using GPS the smart gadget will send location point of the incident place. These images and location will be transmit via internet to the nearest police station authorized PC and smartphones also with the location of that particular place where incidence occurs.

157. Automatic Chakli Maker

Abstract: The primary object of the present invention is to design an automatic chakli maker. Another object of the present invention is to provide economical solution for Common people such that the can afford chakali maker.

158. Shoes for blind Vision

Abstract : The Primary object of the present invention is to provide Vision Shoe is helps in road safety of blind peoples. Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.

159. Safety indicating gloves

Abstract: Primary object of the present invention is to provide Smart safety indicating gloves. Another object of the present invention to provide cost effective safety indicating gloves for cyclists, snowmobilers, horse riders.

160. Water supply system with automatic control of water wastage

Abstract: At malls or at railway station or any other public place taps are kept open even after the use is over. Sometimes water tank is emptied and taps are not closed by mistake. When tank is refilled, the open tap has continuous running water resulting in tremendous wastage of water.

Mostly the taps that are available nowadays have high cost and the set up provided does not match the present water connection. So we need to change the whole connection, which is costly as well as hard to replace. To overcome this situation, the proposed design “Automatic Control of Water Wastage in Public Utility Places and Homes” will indicate to control room or guard room that at which place exactly the water is wasted and automatically will stop the water supply to that part of washroom.

161. Air Drive

Abstract :

Primary object of the present invention is to provide Air Drive device for converting USB storage device into Wireless and Portable.

162. Low Cost Single Phasing Preventer Cum Phase Sequence Relay

Abstract: To prevent motors from rotating in the wrong direction and being switched on to a faulty supply. In this proposed scheme we need not have to monitor phase angle between all the three phases. It is monitoring the phase angle between only two phases and third phase is being used as a source of Dc supply of the control circuit which determines the phase angle between the remaining two phases.

163. Leaf Log Maker Machine

Abstract: Primary object of the present invention is to provide Leaf Log maker machine for reducing the problems of cutting trees for the logs. Another object of the present invention is to develop easy to use, cost effective and time saving device and methodology for construction and working of a leaf log maker machine. Further object of present invention is to evaluate the performance of the developed machine on the basis of ease of operation, cost, etc.

164. Extremely Low Frequency oscillations generator.

Abstract: Due to long wavelength, ELF waves are used for long distance communication through solid medium unaffected by hindrances. Right from their invention, Ultra-capacitors have been proved to be most suitable for wider variety of applications. This makes their use possible for high current, low voltage, low power applications.
ELF waves are basically used for communication through solid medium. They can penetrate easily into earth, through rock and under sea water for communication with submarines.

165. Remote Area Automatic Cleaner

Abstract : Primary object of the present invention is to provide Remote Area Automatic Cleaner. Another object of the present invention is to provide low cost and affordable Automatic Cleaner for Remote Area. Another object of the present invention is to less maintenance cost RAAC.

166. STATCOM Ultracapacitor Based Power Controller

Abstract: A STATCOM which is a reactive power controller interfaced with an energy storage component i.e. ultracapacitor . In normal operation the power controller exchanges reactive power with the grid. During requirements such as increased stability, improved power flow etc., the ultracapacitor provides needed active power support.

167. Air and odor purification using non thermal plasma

Abstract : Primary object of the present invention is to provide Air and odor purification using non thermal plasma to neutralize odor in the air. Another object of the present invention is to provide fresh air.

168. Carom Seed Cleaning Machine

Abstract: The present project focuses on solving the problem faced by the farmers in separating the seeds from the Ajwain flower. Farmers use the manual methods due to unavailability of suitable machinery for Ajwain threshing. During manual Ajwain production, the most time and labor-consuming operation is the threshing of Ajwain by beating the Ajwain heads with a stick, rubbing wear heads against a rough metal surface or power tiller treading machine.

169. Certificate Writer using computerized numerical control plotte

Abstract: The primary object of the present invention is to provide Certificate Writer using computerized numerical control plotter. Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.

170. Walking stick for blind person with multiple sensors

Abstract: Accordingly the present invention relates to Walking stick for blind person with multiple sensors. The blind stick is integrated with ultrasonic sensor along with light, flame and water sensing. In the present invention as a warning signal, a buzzer is connected in the circuit, whose frequency of beep changes according to the distance of object. The closer the distance of obstruction, the more will be the buzzer beep frequency. the beep frequency is inversely proportional to the
distance. Now with this invention blind person can detect many obstacles which is not possible earlier.

171. Electronic Helper Cradle

Primary object of the present invention is to provide Electronic Helper Cradle. Another object of the present invention is to develop a new low cost electronic cradle which takes complete care of baby.

172. Bipedal cluster robot

Abstract: The primary object of the present invention is to provide Bipedal cluster robotto handle a robot using a master robot comprises of microcontroller, motor driver IC, Bluetooth IC, Dc motor and batteries. Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.

173. Blood Analyzer

Abstract: The primary object of the present invention is to provide Blood Analyzer which can determine the value of glucose present in the blood and measure the oxygen saturation in blood. Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.

174. Carbide Detector

Abstract : Calcium carbide has numerous applications in chemical and steel industries and agriculture. It is colorless when pure, but black to grayish-white in color otherwise, with slight garlic-like odour. When it reacts with water, calcium carbide produces acetylene gas which is an analogue of ethylene and quickness the ripening process. It also contains traces of arsenic and phosphorus hydride. A strong reactive chemical, calcium carbide has carcinogenic properties and is used in gas welding. Acetylene gas is flammable and explosive even in a low concentration compared to ethylene.

175. Closed train sanitation system

Abstract : Primary object of the present invention is to provide closed train sanitation system. Another object of the present invention is to provide a system to increase hygiene and cleanliness on the railway stations. Another object of the present invention is to provide cost efficient solution to train sanitation problem.

176. Sugarcane cutting machine

Abstract : The objective of the project is to design & fabricate an efficient mini sugarcane harvesting machine which will be suitable to any kind of planting method and also trying for less consumption of labour, so the overall cost of harvesting.

177. Automatic Pomegranate Deseeding Machine

Abstract : Separation of pomegranate peel and the seed is very time consuming task . To avoid this situations, using this project the juice maker have only one thing to do is to keep the pomegranate on the edge of cutting blade. The further process consist of peeling off and deseeding.

178. Agriculture cultivator machine

Abstract : The main objective of agriculture cultivator machine is to reduce time of weeding and hoeing. To develop a less expensive tool as compared to other automated tools used for above operations. To develop a low maintenance agriculture and time saving tool for these two operation. To develop a compact tool for these operation as compared to tractor and traditional bull or oxen ploughing setup.

179. Tri wheel stair climbing hand cart

Abstract: Primary object of the present invention is to provide mechanism for easy

transportation of heavy loads over stairs. Another object of the present invention is to provide to tri wheel stair climbing hand cart. Another object of the present invention is to find an efficient and user friendly method of carrying various objects through stairs using minimum effort from the user and to also provide a smooth movement while climbing the stair.

180. Meconium Extractor for Neonatal Resuscitation

Abstract: The primary object of the present invention is to provide meconium extraction device for neonatal resuscitation. Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.

181. Off delay timer unit

Abstract: Primary object of the present invention is to provide off timer delay unit to keep engine running for settling duration.

182. Multi-transmission line control system using two voltage source converter

Abstract: The voltage distribution across line length from 0 km(sending end) to 360 km (receiving end) has been observed, which is in reducing trends. To study various VSC based FACTS devices, the panel accessible in Research Lab of GHRCE has been investigated. Through this panel, FACTS devices of distinct merging of series shunt combinations are formed. Out of these, detailed study on IPFC has been accomplished. IPFC performance has been tested under varying firing angles.

183. Fly-ash, Plastic waste, Sand and Putty mixing machine

Abstract: Primary object of the present invention is to provide to Fly-ash, Plastic waste, Sand and Putty mixing Machine. Another object of the present invention is to relieve the problem of waste management to a greater extent.

184. Temperature and humidity control system

Abstract: This device uses water to provide cooling and dehumidification. Also, it possesses the property to provide warm air. The device will be connected to the internet, which will allow us to set time of when the device will start, and to set the temperature of the air from anywhere.

185. Safety Helmet for Coal miners

Abstract: Coal mine incidents were unpredictable and it has many factors the event of an accident, not only causes huge economic losses, but a direct threat to the safety of miners. In order to ensure the safety of underground mine operations, installation of environmental monitoring in the roadway to detect environmental parameters is very important. In recent years, LED miner's helmet is extensively deployed in large and medium-sized mines for their flexibility of light weight and low power.

186. Internet of Things (IOT) based Railway track fault detection and reporting system

Abstract: This system involves the design of crack finding robot for finding cracks in railway tracks. This system uses controller for interfacing the robotic vehicle and crack detection sensor. The sensing device senses the voltage variations from the crack sensor and then it gives the

signal to the microcontroller. The microcontroller checks the voltage variations between measured value and threshold value and controls the robot according to it. The robotic model is interfaced with the microcontroller with the help of SPDT relays and driver IC. If any crack occurs in the rail, the robot will be stopped and then an alarm will be raised.

187. Automatic detection and control of moisture in feeder pillar panel

Abstract: The objective of the project is the automation of method to eliminate the dangers of breakdown in the feeder panel due to presence of moisture. The method which is used to eliminate the moisture is the halogen heating method which eliminates the moisture in the feeder panel by its heating. The project is the automation of working of halogen lamp.

188. Coin counting and sorting machine

Abstract : This work included design the simple display panel to show total quantity of each coin and total amount of coin value as the Crystal Display (LCD) has been implemented to display the result. The coin acceptor has been used as it acts as coin selector to determines the denomination of coins in sorting system is designed by using DC motor to hold and distributes coin to the corresponding slot. Through the project, this integrated design has high performance for coin counting and sorting in terms of user-friendly, accuracy, and attractiveness. The machine available present situation sort mixed coins on the fact that each coin is slightly of different size and so if coin passed over holes of varying size the coins will drop through in a specific order. This machine can used for sorting the coins in the malls, banks, retailers, vending companies, car parks etc. This machine can used for sorting the coins in the malls, banks, retailers, vending companies, car parks etc.

189. Solar tandoor with nano-fluid and phase change material

Abstract : The primary object of the present invention is to provide solar tandoor with nano-fluid and phase change material. Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.

190. Future vehicle

Abstract : The primary object of the present invention is to provide future vehicle which run on a track placed on the divider of the road. Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.

191. Smart T- shirt

Abstract : The aim of this T-Shirt is to advertisers have grown more savvy in terms of their demographics especially the captive market of college students. The story of the message tee embraces the modern phenomenon of “personal branding” indicating, in this case, the wearer’s sense of humor, as well as a climate in which statements—political or personal—are generally preferred to be catchy than true .Notable was the popularity of political slogans and messages on T-shirts coinciding with the presidential election.

192. Continuous positive airway pressure (CPAP) machine

Abstract: This device will be very useful for patients suffering from sleep apnea and snoring problems. Continuous positive airway pressure devices (CPAP) used at night prevent apnea, hypoxia, and sleep disturbance. Although CPAP is more effective than placebo in improving sleepiness and quality of life measures in people with obstructive sleep apnea, patients often prefer a less-effective oral appliance.

193. IOT based electricity theft detection system

Abstract : This proposed system using IOT will be beneficial in controlling the power theft, without any human support and monitoring of a particular electrical distribution line. In future the theft detection can be implemented by using smart energy meters and we can save big amount of loss due to electricity theft. If any illegal connection is established in between two electric poles then this notification is sent to the supervisor at end office. Supervisor can gain access by just logging in to the app and this notification also displays the pole number which make easier to track the pole location easily.

194. GSM based monitoring and controlling of Transformer

Abstract: "GSM Based Monitoring & Controlling Of Transformers" is about design and implementation of a mobile embedded system to monitor and record key parameters of a distribution transformer like load currents, voltage, oil level and ambient temperature.

The idea of on-line monitoring system integrates a global service mobile (GSM) Modem, with a standalone single chip microcontroller and different sensors. It is installed at the distribution transformer site and the above parameters are recorded using the analog to digital converter (ADC) of the embedded system.

195. IOT Based Transformer Monitoring and controlling system

Abstract: The project is mainly based on how to minimize the faults occurring in a distribution transformers during its manufacturing. The faults may also occur in power transformers during their running condition. The faults occurring in transformers are generally over current fault, over voltage fault, increasing in moisture level in transformer, over heating of transformer. This above faults may cause burning of transformer as well decrease in the efficiency of transformer. So in order to minimize these faults/problems, we had used a very handy ,smart, time and cost efficient process to minimize the faults. The project used for minimizing these faults is "IOT based transformer monitoring and controlling system.

196. Development of Reinforced Plastic Material

Abstract: Primary object of the present invention is to provide development of Reinforced Plastic Material. Another object of the present invention is to get a Regression equation for tensile and flexural test obtained from Design of Experiment (DOE) analysis from where one can directly get values for any variation of the parameters.

197. Design and Development of Air Purifier

Abstract: Primary object of the present invention is to provide design and development of Air Purifier. Another object of the present invention is to give an economically same effect as that of other manufactured Air purifiers. Yet another object of the present invention is to give an economical product to the houses living in outskirts of the city or near to the power plants.

Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.

198. Improved in discharge capacity of open spillway by Labyrinth weir

Abstract : The main object of the present invention is to improve discharge capacity over spillway by labyrinth weir. Another object of the present invention is to obtain optimum discharge by designing trapezoidal labyrinth weir. Yet another object of the present invention is to consider the effect of side wall angles from 6 to 30 degrees on the discharge coefficient.

Yet another object of the present invention is to determination of discharge coefficients for quarter round crest shape trapezoidal labyrinth weir. Yet another object of the present invention is to develop relation curves for discharge coefficient as a function head for various side wall angles ranging from 6 to 30 degrees. Yet another object of the present invention is to study discharge capacity of labyrinth weir for fixed width of channel at different side wall angles and heads.Yet another object of the present invention is to determine the maximum value of discharge coefficient as function of side wall angle and corresponding value of head.

199. Corn Maize cutting machine

Abstract :

Primary object of the present invention is to provide Corn Maize cutting machine which is useful for removing the maize from the corn. Another object of the present invention is to provide Easy in operation, Good performance, Light weight, Low cost / Affordable, Simple and easy to set up machine for removing the maize from the corn.

200. Voltage improvement using intelligent controller with hybrid sources

Abstract: FACTS devices have ability to recover terminal voltage. The main focus is on synchronization of two sources of variable frequency. The challenge is to maintain terminal voltage constant, during load variations at steady state conditions. STATCOM is best suited for enhancing the voltage.

201. Automatic load sharing of transformer

Abstract : Primary object of the present invention is to provide Automatic load sharing of transformer. Another object of the present invention is to employs the temperature protection system which acts if the need arises.

202. Programmable LED T-Shirt

Abstract :

The primary object of the present invention is to design and develop a programmable LED T-Shirt.

Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.

203. Waste heat recovery of refrigerator to develop compact system

Abstract: The primary object of the present invention is to design and develop waste heat recovery of refrigerator to develop compact system. Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.

204. Modified tube settlers for high rate settling

Abstract : Primary object of the present invention is to provide modified tube settlers for high rate settling, another object of the present invention is to reduce the detention time up to 10 minutes & to increase the sedimentation rate by application of modified square and hexagonal tube settlers.

Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.

205. Mechanically operated- Wheelchair convertible stretcher and walker

Abstract : Primary object of the present invention is to provide a low cost mechanically operated Wheelchair convertible stretcher and walker Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.

206. Light Weight helmet

Abstract : The primary object of the present invention is to provide Light weight helmet for the safety of bike riders. Another object of the present invention is to provide helmet for motorcycle rider which will be safe, light weight, easy to carry and comfortable to wear. Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art**.**

207. Charcoal Cooler

Abstract : Primary object of the present invention is to provide Charcoal cooler. Another object of the present invention is to minimize the losses of waste for perishable product. Other objects, features and advantages will become apparent from detail
description and appended claims to those skilled in art.

208. Standing wave thermostatic refrigeration

Abstract: The primary object of the present invention is to design and develop a standing wave thermostatic refrigeration. Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.

209. Mechatro Craft Machine for painting Application of Divider and footpath

Abstract: Primary object of the present invention is to design and development of unique mechatro craft machine for painting application of divider and footpath. Another object of the present invention is to achieve accuracy in painting. Yet another object of the present invention is to use optimum manpower and avoid traffic congestion. Yet another object of the present invention is to make the whole process Eco-friendly. Other objects, features and advantages will become apparent from detail description and appended claims to those skilled in art.