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3.3.2 Number of research papers per teachers in the Journals notified on UGC website during the year

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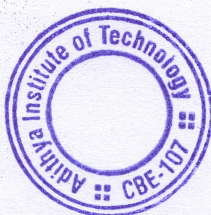


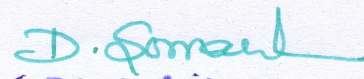
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TO WHOMSOEVER IT MAY CONCERN

This is to certify that the number of research papers per teachers in the Journals notified on UGC website during the year is **5**.




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3.3.2 Number of research papers per teachers in the Journals notified on UGC website during the years

ADACEMIC YEAR – 2021 -2022

S.No	Title of paper	Name of the author/s	Department of the teacher	Name of Journal	ISSN Number	Link to Article
1	Implementation of Dab Based Multiport Converter For Interfacing Hybrid Energy Storage System In EV	Mr.G.Vinoth	Electrical and Electronics Engineering	International Journal for Science and Advance Research In Technology	2395-1052	http://ijsart.com/Content/PDFDocuments/IJSAR TV8I151032.pdf
2	Design and Implementation of Smart farming system	Dr.D.Somasundareswari	Electronics and Communication Engineering	International Journal of Progressive Research in Science and Engineering,	2582-7898	https://www.journals.grdpublications.com/index.php/ijprse/article/view/586/556



S.No	Title of paper	Name of the author/s	Department of the teacher	Name of Journal	ISSN Number	Link to Article
3	Automatic Rainwater Harvesting and Water Purification System	Dr.A.Sridevi	Electronics and Communication Engineering	International Journal of Progressive Research in Science and Engineering,	2582-7898	https://www.journals.grdpublications.com/index.php/ijprse/article/view/585/555
4	Thermal analysis of Alzheimer's disease prediction using random forest classification model	Mrs.A.Parameswari	Electronics and Communication Engineering	Materials Today: Proceedings	2214-7853	https://www.sciencedirect.com/science/article/pii/S2214785322024993
5	Accident Alert System Using GPS Tracker	Mrs.A.Parameswari	Electronics and Communication Engineering	International Journal of Progressive Research in Science and Engineering,	2582-7898	https://www.journals.grdpublications.com/index.php/ijprse/article/view/609/579



Implementation of Dab Based Multiport Converter For Interfacing Hybrid Energy Storage System In EV

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Abstract- Electric vehicles are seen as the most viable solution, one of the major hurdles for electric vehicles is the limited range and lifetime of batteries. During starting and acceleration of the vehicles, high current is drawn from the battery which greatly reduces their lifetime. The solution to this problem is to not use the battery during starting and acceleration, and instead use an alternative energy storage device that can supply large current without oversizing. A multi-port converter (MPC) based on Dual Active Bridge topology is proposed in this project, which aims at electric vehicle applications for interfacing battery and supercapacitor to the drive train. In hybrid power sources or in electric vehicles, the promising concepts for these are multiport converters. They are much beneficial as conversion can be done in a single stage while even interfaced with multiple input power sources. Due to the flexibility of a multiport converter, it gives several advantages. It can be used for many applications as electric vehicles, renewable energy sources for Uninterruptible Power Supply without storage, or it can be used for storage, or it can be used for storage of energy using hybrid sources.

I. INTRODUCTION

Conventional transportation based on fossil fuels is a major source of environmental pollution. In this context, electric vehicles are seen as the most viable solution. Electric Vehicles are the representatives in charge of transportation, and this innovation is presently developing quickly. While the carbon impression of an Electric Vehicle (EV) is effectively wrangled about it is seen as a promising distinct option for controlling fuel costs. EVs have an exceptional power profile that has both force usage and recovery at various moments of their operation. DC-DC converters are equipment, which is used to interface the power supply to the load. There are two ways for the integration of the power side with the load and storage side.

1. Common DC-DC bus
2. Multiport DC-DC bus

The common DC bus method is the conventional method. In the which, every source of energy relates to its own DC-DC converter while in the multiport DC-DC bus method, there is a single controller for the multiple inputs and output ports.

PROBLEM IDENTIFICATION

The major hurdles for electric vehicles are the limited range and lifetime of batteries. During starting and acceleration of the vehicle, a high current is drawn from the battery, which greatly reduces their lifetime. Apart from the reduced lifetime, the utilizable energy capacity of the battery depends on the current drawn and is reduced if the battery is discharged at a high current, which ultimately translates to a reduced kilometer range of EV. To cater to the high current required during starting and acceleration, the battery must be designed according to the power requirement. Designing a battery pack for high current leads to a large volume of the battery pack which is uneconomical and take a large space inside the EV. This is eventually reflected in the cost of EV, which is currently facing a tough challenge due to competition with ICE vehicles in terms of cost. Further, charging a large battery pack takes a long time using the residential EV chargers, further adding to the reluctance towards the acceptance of EVs. The solution to this problem is to not use the battery during starting and acceleration, and instead use an alternative energy storage device that can supply a large current, without oversizing.

PROPOSED SYSTEM

In the proposed system, Supercapacitors are high energy content capacitors, which are can boardable of supplying high currents for short intervals of time. However, unlike batteries, they cannot store a large amount of energy and cannot provide the required range to EV, so they cannot be used as the only energy storage device onboard an EV. A combination of supercapacitor and battery is generally known as a Hybrid Energy Storage System (HESS). A multi-port converter (MPC) based on Dual Active Bridge topology is proposed, which aims at electric vehicle applications for



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Design and Implementation of Smart Farming System

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Abstract: - Agriculture is one of the important aspects to feed ever growing population and is the source of the world's food supply. Monitoring and disease detection plays an important role in the successful cultivation of crops on the farmland. The proposed system is a Smart farming system that can able to monitor the farmland parameters like temperature and humidity, soil moisture content, and detect the plant diseases using Machine Learning Techniques. The system uses Raspberry Pi for both automation and disease detection systems. The sensor data can be viewed by the farmers using a Web page. After detecting any diseases in the plants, the information is automatically sent to the farmer via mail.

Key Words: *Smart Farming system, Machine Learning Technique, Temperature, and Humidity monitoring, Soil moisture monitoring, Leaf disease detection.*

I. INTRODUCTION

Agriculture, the backbone of India contributes a major role in the economic development. In India, about 70% of the population depends on agriculture. Due to rapid population and urbanization, there emerges need to find new methods of cultivation in agriculture. In agriculture, automation is always being a great challenge for farmers. And also the production of fewer amounts of crops of good quality is due to disease. Climate changes also have a significant impact on agriculture by increasing water demand and limiting crop productivity in areas where irrigation is most needed. In order to use water efficiently a smart system has to be designed. In the system, farmers need not make the water flow into fields manually, but the system automatically does that efficiently. Plant diseases have made larger problems as it causes a significant reduction in both quality and quantity of agricultural products.

Also, the spread of diseases has increased due to environmental pollution and many other causes. [1] It shows the survey about smart agriculture to increase the quantity and quality of crops and overall farm. With the use of IoT and sensors, monitoring of farms can be done. One can find the condition of the farm from their house or any place and also the farmer gets notifications via SMS. This system gives real-time environmental parameters which can be used in deciding whether the crop is suitable for growing. [2] It describes the methodology used for detecting plant disease using Image Processing. The various steps like loading an image; pre-processing, segmentation, extraction and classification are involving illness detection. The leaves pictures are used for detecting plant diseases. [3] This system uses an Arduino UNO microcontroller and few sensors to monitor the farmland spontaneously. [4] This system was focused on the detection of leaf diseases using IoT which includes collecting sensor data, processing and detecting leaf disease using Image Processing. [5] It describes the Smart farming system with various sensors to monitor the farmland and update the status of the farmland via a customized web service. [6] It describes the Smart farming system using IoT with various sensors like temperature and humidity sensor, PIR sensor, and soil moisture sensor to monitor the farmland with the help of Arduino and update the status of the farmland via message to the farmland using GSM module. [8] It shows the survey about smart agriculture.

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Automatic Rainwater Harvesting and Water Purification System

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Abstract: - Nowadays we are facing many problems, especially water scarcity. Most people have wasted the rainwater so it gets mixed with drainage and sometimes in the ocean. Now, we are using the rainwater and purifying it by using our natural resource charcoal, since charcoal is the cheapest, best and harmless for our body. The components of our project are the collecting tank, pipes, microcontroller and sensors. So, the cost project is low. Our product is very much useful in the summer season. This project aims to avoid the wastage of rainwater by using an effective harvesting system and ensures the purity of water with the help of a charcoal filter.

Key Words: — *Rainwater Harvesting, Charcoal filter, Arduino, Solenoid Valve, pH sensor.*

I. INTRODUCTION

While the future is difficult to predict, available freshwater resources will certainly decrease in the coming years due to increasing demand of a growing world population. Many areas of the world that are already experiencing a shortage of water resources will see their water issues worsen, causing hardships for millions. Water covers 70% of our planet, and it is easy to think that it will always be plentiful. However, freshwater- stuff we drink, bathe in and irrigate our farm with is incredibly rare. Only 3% of the world's water is freshwater, and two-thirds of that is tucked away in frozen glaciers or otherwise unavailable for our use. As a result, some 1.1 billion people worldwide lack access to water, and a total of 2.7 billion find water scarce for at least one month of the year. Inadequate sanitation is also a problem for 2.4 billion people who are exposed to diseases. By 2025, an estimated 1.8 billion people will live in areas plagued by water scarcity, with two-thirds of the world's population living in water-stressed regions.

Water demand in India will reach 1.5 trillion cubic meters in 2030 while India's current water supply is only 740 billion cubic meters. By the time 2040, there won't be enough water in the world to quench the thirst of the world population and keep the current energy and power results going if we continue doing what we're doing moment. To avoid all these problems an effective rainwater harvesting systems should be enforced. This automatic rainwater harvesting systems can be installed every place and original people can be fluently trained to apply similar technology and conservation material is fluently available. It has low conservation cost and running cost, first of all, we need to clean our roof or catchment area to help any dirt or other gratuitous accoutrements from polluting the water. The construction of cement jars or provision of gutters doesn't bear veritably high professed force.

II. LITERATURE SURVEY

Dr C. Kishore Kumar Reddy, PR Anisha, Rajashekar Shastry, Dr B V Ramana Murthy, Dr Vuppu Padmaka: in the year 2019 proposed with a project on "Automated Rainwater Harvesting System". They Harvested Rainwater and stored in underground. Bandi Lasya, Yethinthala Bhavana, Bachu Deekshitha, Priya B.K; in the year 2020 proposed with a project on "An Innovative and Effective Electronic Based Automatic Rainwater Harvesting System". They Harvested Rainwater and used for various household works. Gaurav

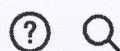
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


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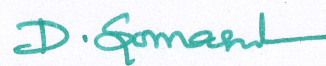
Thermal analysis of Alzheimer's disease prediction using random forest classification model

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Abstract

Missing and irregularly sampled data points are common in time-dependent data collected in Alzheimer's disease studies. As a result, time-series methods based on regular sampling cannot be applied directly to data without first undergoing pre-processing. In this paper developed to learn the relationship between pairs of data points at different times, we implement random forest model separations in time the input vector contains a summary of the time series history. Due to similar brain patterns and pixel intensities, the diagnosis of AD images to feature representation for categorization. Machine Learning approaches can learn things like representations from data. A 4-way classifier is used in this study to distinguish between Healthy Control (HC) and Mild Alzheimer's disease (AD), Very Mild AD, and Moderate AD patients. Experiments are carried out using the OASIS dataset, and the results are used to classify diseases into multiple categories. The Random Forest Classification Model was used to do a thermal analysis of Alzheimer's disease prediction. The random forest classifier models have been shown to consistently outperform their equivalents. The improved accuracy of tweaking the parameters of random forest classifiers demonstrated in this study work argues for its use in the classification of stages of Alzheimer's disease.


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Accident Alert System Using GPS Tracker

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Abstract: The level of accidents has increased mainly due to over speeding. Most road accidents occur because of distractions from driving. Nowadays accidents have increased in the past 10 years. To reduce the road accidents in this project. We are going to make an accident alert system using a GPS tracker which will monitor whether any object comes across the vehicle while driving, when the object comes across the vehicle the sensor detects and gives an alert in the form of LCD and audio. In case of an accident occur, in the vehicle, we fixed the GPS tracker it detects the location of the vehicle and sends the information to a given number in the program. It gives the alert in the form of call and message format.

Key Words: — Accident, GPS Tracker, LCD, Message Call, Vehicle.

I. INTRODUCTION

Roadside accidents become a major problem in daily life. Especially in urban areas and cities, roadside accidents have been increasing daily. According to the survey by the Government of India, 1.2 million people died in a severe road accident and 50 million people have been injured the treatment for this has been increased by about 70% in the developing countries, especially in India. If the same condition is continued then it will contribute to the global burden of disease and injury by 2020. Most road accident deaths occur in the age group between 14-44. Due to the road accident, they have lost their life. In India, the living of middle-class people is higher than compared in other countries. The middle class doesn't have insufficient money to treat the person met with the accident and so it sometimes causes the death of the person. The standard of living will automatically decrease due to the death of the person. Driving at an excess speed, driving the vehicle with the consumption of alcohol or drug, while sleepy or tired are the major factors that lead to the accident.

In developing countries, the exposure of road side accidents has been increased due to rapid drive of motorization, rapid population growth, lack of safety measures in the vehicles, crowded roads, and poor maintenance of the road. Improving the public transportation system can also reduce accident that happens on the roadside. According to the plan, the website has been developed by the General Insurance Council for the accident reporting to the police or victims' families in the form of call or message alerts at the time of 24X7. New technologies have been created for the avenue of the roadside accident.

II. PROPOSED SYSTEM

Our proposed system is used to detect objects and the accident-prone zone using a GPS tracker and send a call and message with location through the GSM module to the feeding helpline number. It helps to reduce accidents at the roadside in urban areas and cities. We have separated the process of our proposed system into 2 processes. One of the processes took place within the vehicle itself and another process was to send the message and call using a GPS tracker to avoid causing the death of life due to the accident. We have used an ultrasonic sensor to detect the object when the object is detected and the accelerometer reduces the speed of the motor instantly. Once the object was identified the output was displayed on LCD and gave audio output for the driver. All the processes are controlled by the Arduino Uno R3. In case an accident occurs, the output will be displayed in the form of a message with location and received the call from the vehicle unit to be given a mobile number in the program. And another output is in the

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