



ANNAI VAILANKANNI COLLEGE OF ENGINEERING

(A Christian Minority Institution)

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

Recognized under section 2(f) of UGC Act 1956

Website: www.avce.edu.in

Dr.R Angeline Prabhavathy

PRINCIPAL

Authentication certificate

This is to certify that the total grants from Government and non-governmental agencies for research projects/ endowments in the institution during the last five years (INR in Lakhs).

2022-2023	2021-2022	2020-2021	2019-2020	2018-2019
4.35	4.62	2	2.75	3.8



PRINCIPAL
ANNAI VAILANKANNI COLLEGE OF ENGINEERING
POTTALKULAM
AZHAGAPPAPURAM - 629 401
KANYAKUMARI DIST.

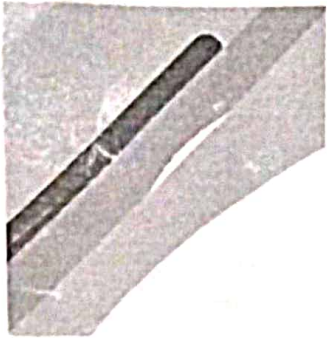
3.1.1 Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)

Name of the research project/ endowment	Name of the Principal Investigator/ Co-Investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned	Duration of the project	Name of the Funding Agency	Type (Government /non Government)
AI medicinal Robot an IOT Innovation for Healthcare	Mrs P Renuka	Electronics and Communication Engineering	2022-2023	11.	11 months	Mallas Automated and Robotic Systems	Non-Government
Aspects of Concrete using COCO-peel	RII Engineers & Contractors	Civil Engineering	2022-2023	0.50L.	2 Months	RII ENGINEERS & CONTRACTORS	Non-Government
Leaf disease Identification using image processing based on CNN	Dr. Sybi Cinthiya	Computer Science and Engineering	2022-2023	1.35L.	6 months	Iconic Software solution	Non-Government
Thermal Analysis of V12 Engine Block	Mr.J.Prabhu	Mechanical Engineering	2022-2023	1.5L.	10 months	Shalom Engineering Consultancy	Non-Government
Electric Bike	Mr.J Arockia Prince	Electronics and Communication Engineering	2021-2022	1.25L.	6 months	Energy Motors	non-Government
IoT Based Patient Health Monitoring	Mrs. Anugraha	Computer Science and Engineering	2021-2022	1.25L.	4 months	iconix-software solution	non-Government
Development of Portable Humanoid Robot	Mr.R Robert	Electronics and Communication Engineering	2021-2022	1.35L.	10 months	Mallas Automated and Robotic Systems	non-Government
Experimental Study on Partial Replacement of Cement with Rice Husk Ash in concrete	Mrs.M.Morin Gracida	Civil Engineering	2021-2022	0.40L.	6 months	RII ENGINEERS & CONTRACTORS	Non-Government
Making a low cost chaff cutter out of recycled materials	Dr.Lalu Gladson Robin	Mechanical Engineering	2021-2022	0.075L.	6 MONTHS	Tamilnadu state council for science and Technology	Government
Innovation and entrepreneurship Development Program(IEDP)	Dr.Lalu Gladson Robin	Mechanical Engineering	2021-2022	0.07L.	6 MONTHS	EDII-TN-JEDP	Government

Wind Shield Glass Camera Vision Based Driver Detection and Alert System using Deep Learning	Mrs Berlin Shameema	Computer Science and Engineering	2020-2021	1L	6 months	Iconic Software solution	Non-Government
IOT based accident detection and Ambulance rescue system	Mrs Anusha Vincent	Electronics and Communication Engineering	2020-2021	1L	6 months	Mallets Automated and Robotic Systems	non-Government
Development of Coir Pith Drier	Mr Pearson David	Mechanical Engineering	2019-2020	2.25L	1 year	S B. Engineering works	non-Government
Concrete by Partial replacement Cement	RB Engineers &	Civil Engineering	2019-2020	0.50L	4 Months	RB Engineers &	non-Government
Solar Powered Tricycle for fish vending Women	Mr G Gaswin Kastro	Electronics and Communication Engineering	2018-2019	2.25L	10 Months	Instrument India	non-Government
UTILIZATION OF WASTE PLASTICS,SEA SAND AND STONE POWDER TO MAKE PAVING BLOCKS	Mrs Shobana Kumar	Civil Engineering	2018-2019	1.55L	10 months	RB ENGINEERS & CONTRACTORS	Non-Government
Total				17.5			




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 ANNA UNIVERSITY
 COLLEGE OF ENGINEERING
 ADHIGIRAPPURAM - 605 014
 CHENNAI - 600 022



SOFTWARE SOLUTION

iconix

Date: 12.09.2021

OFFER LETTER

To

Mrs.Anugraha,
HOD/CSE,
Annai Vailankanni College of Engineering,
AVKNagar,Pothaiyadi Salai
Azhagappapuram.P.O, Kanyakumari District -629
401,TamilNadu, India.

Sub: Offer of financial assistance to the proposal submitted for the project grant-in-aid during the financial year 2021-2022.

Dear Sir/Madam,

With reference to the proposal submitted for financial assistance for the project. We kindly agree to offer Rs.1,25,000/- (One lakh Twenty Five Thousand Only/-) as financial assistance to your Institution as grant-in-aid during the financial year 2021-2022 with the following details:

Project Title : IoT Based Patient Health Monitoring
Principal Investigator: Mrs. Anugraha
Amount : 125,000/-


With Regards,


R. Saravana Kumar
Managing Director&CEO



No2, I kailasa puram Middle Street, Tirunelveli Junction. Mob:
*919566917879, Res:0462 4000196
Email: iconixtv@gmail.com




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ANNAI VAILANKANNI COLLEGE OF ENGINEERING
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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

Approval Form for Consultancy Projects

1. Project Title : IoT Based Patient Health Monitoring
2. Sponsoring Industry : "iconix Software Solution", Tirunelveli.
3. Investigators / Consultants / Co-investigators / Co-consultants : Mrs.Anugraha HOD/CSE
4. Scope of the Project : To design of Wind Shield Glass Camera Vision Based Driver Detection and Alert System using Deep Learning.
5. Proposed Duration : 12-Sep -2021
6. Project Value : Rs. 1,25,000/-

Baby.

Signature of the Project Coordinator

Anugraha

Head of the Department

Balaram

Principal

Angel

PRINCIPAL
ANNA VAILANKANNI COLLEGE OF ENGINEERING
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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

CIRCULAR

Date : 10-Nov-2021

It is informed that our department received a requisition letter for consultancy service from "ICONIX Software Solution", on this regard, it is planned to conduct a meeting today by 12.00 P.M at our Bosch Lab. All the faculty members of our department are requested to attend the meeting.


HOD

Circulated to :

- All Faculty members of CSE department

Copy to :

- The Principal



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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

MINUTES OF MEETING

Date : 10-Nov-2021

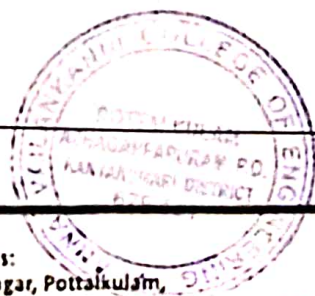
Venue : CSE Department (Bosch Room)

Agenda : Project Details – “Iconix Software Solution “IoT Based Patient Health Monitoring.

The head of the CSE department has conducted the meeting with all the faculty members of CSE department. The following members were attended the meeting.

S.No	Name of the Faculty	Designation	Signature
1.	Dr. Sebastian Antony Joe	ASP	
2.	Dr. Usha Ruby	ASP	
3.	Dr. Jeevesha	ASP	
4.	Dr. Sybi Cinthiya	ASP	
5.	Dr. Anto Bennet	ASP	
6.	Mrs. Mary Varsha	AP	
7.	Mrs. Hema	AP	
8.	Mrs. Romiya	AP	

Head of the Department



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Website: www.avce.edu.in

Date : 22-Nov-2021

Mrs.Anugraha,

HOD / CSE

To

Iconix Software Solution,
No 2, Ikailasapuraiaa Middle Street,
Tirunelveli Junction
Tirunelveli

Dear Sir,

Sub : Response letter for your letter dated 22-Nov-2021 - Reg.

We are happy to receive your letter requesting consultations on studies on wind Shield Glass Camera Vision Base Driver Detection and Alert System using Deep Learning. We are happy to accept the project and nominate Assistant Professor, Mrs.Anugraha, as a project coordinator and has expertise in various Solar systems. We would like to send Mrs.Anugraha and Mr.Babu , Assistant Professors of our department to visit your company for further discussions for analysis and better understanding of your actual requirement on 30-Nov-2021. Your acknowledgement for this letter is highly appreciable.

Thanking You,

Place : Pottalkulam

Date : 22 - 11 - 2021

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info@avce.edu.in



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Annexure

BUDGET

Items	Cost (Rs)	Total Cost
Equipment & Components	70,000	95,000
Consumables	8,000	10,000
Travel	3,000	3,000
Documentation	5,000	5,000
Final Project Review	12,000	12,000
TOTAL		Rs. 1,20,000/-



Bulawa

Anugraha

Angel

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ANNAI VALLANKANNI COLLEGE OF ENGINEERING
POTTALKULAM
AZHAGAPPAPURAM - 629 401
KANYAKUMARI DIST.

iconix

SOFTWARE SOLUTION

To

The Principal,
Annai Vailankanni College of Engineering,
AVK Nager, Pottalkulam,
Kanyakumari – 629 401

Copy to : HOD /CSE

Dear Madam,

Sub : Project Sanction Order – Reg

We are greatly privileged to offer the grant of Rs.1,25,000 to the Project "IoT Based Patient Health Monitoring". The project will be carried forward during the period Sep – 2021 to Feb 2022 by the team member Mrs. Anugraha, and Mr.Babu Computer Science Engineering Department, Annai Vailankanni College of Engineering, Kanyakumari. We Would extend our continuous support throughout the implementation of the project

Thanking You



With Regards,

R. Saravana Kumar
Managing Director&CEO

No2,Ikailasapuraiaa Middle Street, Tirunelveli Junction. Mob:
*91 95669 17879, Res: 0462 4000196
Email:iconixtv@gmail.com

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Date : 30/12/2021

Mrs. Berlin Shameema,
Head of the Department,

STAMPED RECEIPT

Received with thanks from "ICONIX Software Solution" a sum of Rs.1,25,000/- (One Lakh Twenty Five Rupees only) as payment for the proposed project on "IoT Based Patient Health Monitoring".



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HOD / CSE



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DEPARTMENT OF DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

PROJECT COMPLETION REPORT

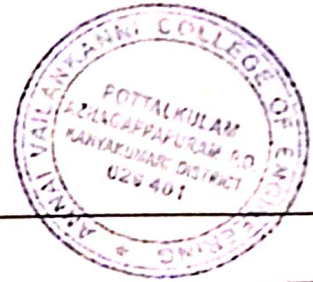
1	Project Coordinator (Name and Address)	Mrs. Anugraha, and Mr.Babu
2	Name of the Company and Address	Iconix Software Solution, No 2, Ikailasapuraiaa Middle Street, Tirunelveli Junction Tirunelveli
3	Project Title	IoT Based Patient Health Monitoring
4	Amount Sanctioned	Rs.1,25,000/-
5	Project Review Date	Feb - 2022

Project Coordinator

(Signature)

HOD/CSE

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UTILIZATION CERTIFICATE

Title of the Project : IOT Based Patient Health Monitoring
Department : Computer Science and Engineering
Date of Start : 12-09-2021
Date of Completion :
Name of the Project Principal Investigator(s) : Mrs.Anugraha
Implementing Organization(s) : Iconix Software Solution
Sanction order Date :
Total amount that was received : Rs. 1,25,000
Actual Expenditure incurred : Rs. 1,25,000
Balance amount available : Nil

Name & Signature Office

Date :

Name & Signature of Head of the Department with Seal

Date :

Anugraha

Name & Signature of Principal with Seal

Date :

Balu



[Signature]

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ANNAI VAILANKANNI COLLEGE OF ENGINEERING

AVK Nagar, Pottalkulam, Azhagappapuram P.O, Kanyakumari District -629 401

IOT BASED PATIENT HEALTH MONITORING

PRINCIPAL
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AZHAGAPPAPURAM - 629 401
KANYAKUMARI DIST.



Abstract

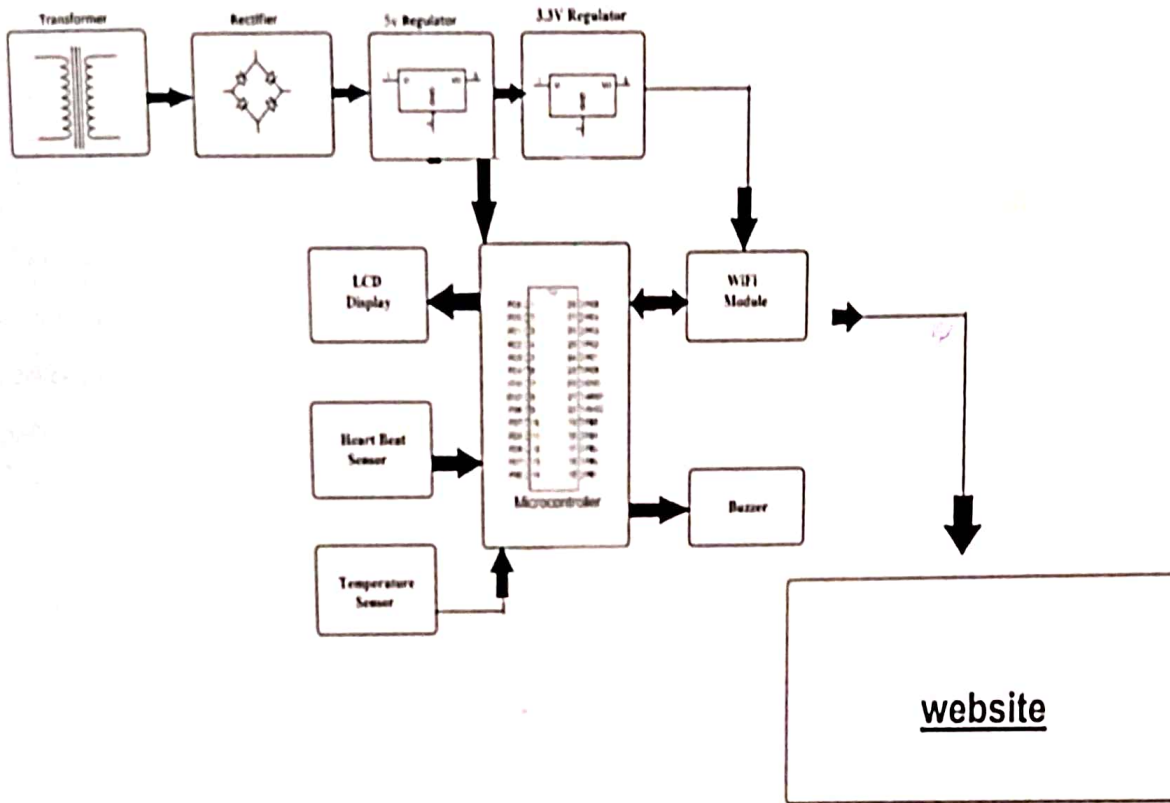
Monitoring your beloved ones becomes a difficult task in the modern day life. Keeping track of the health status of the patient at home is a difficult task. Especially old aged patients should be periodically monitored and their loved ones need to be informed about their health status from time to time while at work. So we propose an innovative system that automated this task with ease. Our system puts forward a smart patient health tracking system that uses Sensors to track patient health and uses internet to inform their loved ones in case of any issues. Our system uses temperature as well as heartbeat sensing to keep track of patient health. The sensors are connected to a microcontroller to track the status which is in turn interfaced to an LCD display as well as Wi-Fi connection in order to transmit alerts. If system detects any abrupt changes in patient heartbeat or body temperature, the system automatically alerts the user about the patient's status over IOT and also shows details of heartbeat and temperature of patient live over the internet. Thus IOT based patient health tracking system effectively uses internet to monitor patient health stats and save lives on time.



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Block Diagram:



Hardware Specifications:

- Heartbeat Sensor
- Temperature Sensor
- Atmega 328 Microcontroller
- Wi-Fi Modem
- LCD Display
- LED's
- Transformer
- Resistors
- Capacitors
- Diodes

Ashel

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Software Specifications:

- Arduino Compiler
- MC Programming Language: C
- IOTGecko

Conclusion:

The proposed system of health monitoring can be highly used in emergency situations as it can be daily monitored, recorded and stored in a database. Through our project doctors can also monitor patient health remotely using IOT. All the individual sensors like heart-rate sensor, temperature sensor etc give out the intended results.



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Annai Vailankanni Educational & Charitable Trust
 20 Judges Colony,
 Kottivakkam,
 Chennai 600 011

Income & Expenditure Account for the Year ended 31st March 2022

Particulars	Schedule	Trust	College	Consolidated
		Amount (In ₹)	Amount (In ₹)	Amount (In ₹)
Direct Income	VII	-	23,069,151	23,069,151
Direct Expenditure	VIII	-	2,507,693	2,507,693
Gross Income / Contribution		-	20,561,758	20,561,758
Indirect Income	IX	-	3,120,184	3,120,184
Indirect Expenditure	X	1	18,934,224	18,934,225
Net Income before Interest and Depreciation		(1)	5,017,718	5,017,717
Interest and other Financial Charges	XI	1,869,079	2,407,438	4,276,517
Net Income Before Depreciation		(1,869,080)	2,640,251	771,200
Depreciation	IV	4,510,934	1,992,354	6,503,235
Net Income before Income Tax		(6,380,012)	617,927	(5,732,055)
Provision for Income Tax		-	-	-
Net Income After Income Tax		(6,380,012)	617,927	(5,732,055)

As per our report issued under section 12A(b) of Income Tax act, 1961

For Srinivas And Gopal
 Chartered Accountants

T. Srinivas
 Proprietor
 Membership No. : 200 -023535, ACCOUNTANTS
 I. No: 0010195
 Place: Chennai
 Date : 17.09.2022
 UDIN: 22023535ATUVHX1418



For Annai Vailankanni Educational & Charitable Trust:

[Signature]
 D. Peter Jesudhas
 Managing Trustee

[Signature]
 PRINCIPAL
 ANNAI VAILANKANNI COLLEGE OF ENGINEERING
 POTTALKULAM
 AZHAGAPPAPURAM - 629 401
 KANNIYAKUMARI DIST.



Date: 2.7.2020

To

Mrs. Berlin Shameema
Assistant Professor/CSE,
Annai Vailankanni College of Engineering,
AVK Nagar, Pothaiyadi Salai Azhagappapuram P.O.,
Kanyakumari District - 629 401, Tamil Nadu, India.

Sub: Offer of financial assistance to the proposal submitted for the project grant-in-aid during the financial year 2020-2021.

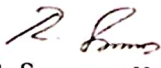
Dear Madam,

With reference to the proposal submitted for financial assistance for the project, We kindly agree to offer Rs. 1,00,000/- (One lakh Only/-) as financial assistance to your Institution as grant-in-aid during the financial year 2020-2021 with the following details:

Project Title : Wind Shield Glass Camera Vision Based Driver
Detection and Alert System using Deep Learning

Principal Investigator : Mrs. Berlin Shameema
Amount : 1,00,000/-

With Regards,


R. Saravana Kumar
Managing Director & CEO




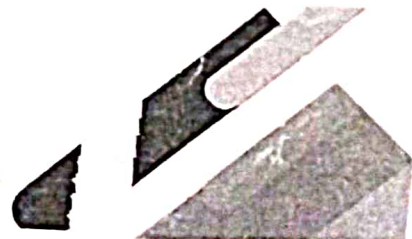
No. 2, Ikkailasapuram Middle Street, Tirunelveli Junction. Mob:

*91 95669 17879, Res: 0462 4000196

Email: iconixtv@gmail.com




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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

Approval Form for Consultancy Projects

1. Project Title : Wind Shield Glass Camera Vision Based Driver Detection and Alert System using Deep Learning
2. Sponsoring Industry : "iconix Software Solution", Tirunelveli.
3. Investigators / Consultants / Co-investigators / Co-consultants : Mrs.Berlin Shameema AP/CSE
4. Scope of the Project : To design of Wind Shield Glass Camera Vision Based Driver Detection and Alert System using Deep Learning.
5. Proposed Duration : 22-December -2020
6. Project Value : Rs. 1,00,000/-

Signature of the Project Coordinator

Head of the Department

Principal

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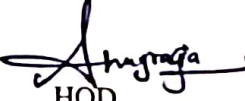
Website: www.avce.edu.in

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

CIRCULAR

Date: 06-JAN-2021

It is informed that our department received a requisition letter for consultancy service from "ICONIX Software Solution", on this regard, it is planned to conduct a meeting today by 3.00 P.M at our Staff Room. All the faculty members of our department are requested to attend the meeting.



HOD

Circulated to :

- All Faculty members of CSE department

Copy to :

- The Principal



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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

MINUTES OF MEETING

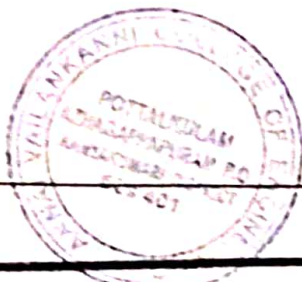
Date : 06-Jan-2021

Venue : CSE Department (Class Room)

Agenda : Project Details – “Iconix Software Solution “

The head of the CSE department has conducted the meeting with all the faculty members of CSE department. The following members were attended the meeting.

S.No	Name of the Faculty	Designation	Signature
1.	Dr. Sebastian Antony Joe	ASP	
2.	Dr. Usha Ruby	ASP	
3.	Dr. Gini	ASP	
4.	Dr. Jereesha	ASP	
5.	Dr. Sybi Cinthiya	ASP	
6.	Dr. Anto Bennet	ASP	
7.	Mrs. Jesika	AP	
8.	Mrs. Bakumma Greetha.	AP	



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Head of the Department



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Website: www.avce.edu.in

Date : 20-Jan-2021

Mrs.Berlin Shameema,

HOD / CSE

To

Iconix Software Solution,
No 2, Ikailasapuraiaa Middle Street,
Tirunelveli Junction
Tirunelveli

Dear Sir,

Sub : Response letter for your letter dated 20-Jan-2021 - Reg.

We are happy to receive your letter requesting consultations on studies on wind Shield Glass Camera Vision Base Driver Detection and Alert System using Deep Learning. We are happy to accept the project and nominate Assistant Professor, Mrs.Berlin Shameema, as a project coordinator and has expertise in various Solar systems. We would like to send Mrs.Berlin Shameema and Mrs.Jeessika , Assistant Professors of our department to visit your company for further discussions for analysis and better understanding of your actual requirement on 29-Jan-2021. Your acknowledgement for this letter is highly appreciable.

Thanking You,

Place : Pottalkulam

Date : 20-01-2021

PRINCIPAL
ANNA VAILANKANNI COLLEGE OF ENGINEERING
POTTALKULAM
AZHAGAPPAPURAM
KANYAKUMARI DIST.
629 401



Address:
AVK Nagar, Pottalkulam,
Azhagappapuram Post, Kanyakumari District - 629401.



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info@avce.edu.in



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Annexure

BUDGET

Items	Cost (Rs)	Total Cost
Equipment & Components	60,000	70,000
Consumables	8,000	10,000
Travel	3,000	3,000
Documentation	5,000	5,000
Final Project Review	12,000	12,000
TOTAL		Rs. 1,00,000/-



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KANYAKUMARI DIST.

iconix

SOFTWARE SOLUTION

To

The Principal,
Annai Vailankanni College of Engineering,
AVK Nager, Pottalkulam,
Kanyakumari – 629 401

Copy to : HOD / **ESE**

Dear Madam,

Sub : Project Sanction Order – Reg

We are greatly privileged to offer the grant of Rs.1,00,000 to the Project “Wind Shield Glass Camera Vision Based Driver Detection and Alert System using Deep Learning “. The project will be carried forward during the period Oct – 2020 to Mar 2021 by the team members Mrs. Berlin Shameema, and Mrs. Jeessika Computer Science Engineering Department, Annai Vailankanni College of Engineering, Kanyakumari. We would extend our continuous support throughout the implementation of the project.

Thanking You



With Regards,

R. Saravana Kumar
Managing Director & CEO

No.2, Ikaijasapuraiaa Middle Street, Tirunelveli Junction. Mob:

+91 95669 17879, Res: 0462 4000196

Email: iconixtv@gmail.com

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Date : 09/03/2021

Mrs. Berlin Shameema,
Head of the Department,

STAMPED RECEIPT

Received with thanks from "ICONIX Software Solution" a sum of Rs.1,00,000/- (One Lakh Rupees only) as payment for the proposed project on "Wind Shield Glass Camera Vision Based Driver Detection and Alert System using Deep Learning".



A. Pragas
HOD / CSE



A. Pragas
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DEPARTMENT OF DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

PROJECT COMPLETION REPORT

1	Project Coordinator (Name and Address)	Mrs.Berlin Shameema
2	Name of the Company and Address	Iconix Software Solution, No 2, Ikailasapuraiaa Middle Street, Tirunelveli Junction Tirunelveli
3	Project Title	Wind Shield Glass Camera Vision Based Driver Detection and Alert System using Deep Learning
4	Amount Sanctioned	Rs.1,00,000/-
5	Project Review Date	15-Mar-2021

Project Coordinator

Jeessika
(Signature)

Amrags
HOD/CSE

Magel

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UTILIZATION CERTIFICATE

Title of the Project : Wind Shield Glass Camera Vision Based Driver Detection and Alert System Using Deep Learning

Department : Computer Science and Engineering

Date of Start : 02-07-2020

Date of Completion : 05/03/2021

Name of the Project Principal Investigator(s) : Mrs.Berlin Shahemma

Implementing Organization(s) : Iconix Software Solution

Sanction order Date : 11/02/2021

Total amount that was received : Rs. 1,00,000

Actual Expenditure incurred : Rs. 1,00,000

Balance amount available : Nil

Name & Signature Office

Date :

Name & Signature of Head of the Department with Seal

Date :



Name & Signature of Principal with Seal

Date :

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ANNAI VAILANKANNI COLLEGE OF ENGINEERING

AVK Nagar, Pottalkulam, Azhagappapuram P.O, Kanyakumari District -629 401

WIND SHIELD GLASS CAMERA VISION BASED DRIVER DETECTION AND ALERT SYSTEM USING DEEP LEARNING

PRINCIPAL
ANNAI VAILANKANNI COLLEGE OF ENGINEERING
POTTALKULAM
AZHAGAPPAPURAM - 629 401
KANYAKUMARI DIST.

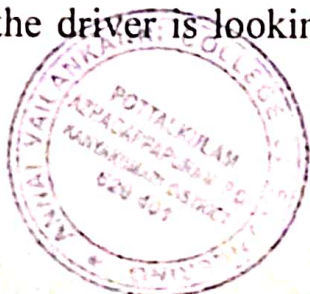


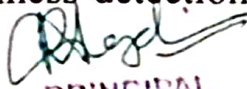
INTRODUCTION

Camera based driver monitoring systems (DMS) can help in detecting driver drowsiness and distraction, thus playing a crucial role in ensuring driver safety. DMS solutions have traditionally been developed using Computer Vision/Image Processing approach. This approach needs fine tuning of various parameters based on different conditions like lighting, ethnicity etc. It is extremely difficult to tune such solutions generically to fit all conditions. More recently, conventional machine learning approaches have been used, where, the researcher must decide what features in the data are important and then let the machine learn based on those features. This requires a lot of expertise in that area as well as a lot of research in picking these features. As compared to these approaches, the Deep Learning based approach takes a holistic view of the data and derives features from the data on its own, removing the dependency for hand-crafted features by humans. Deep learning is a subset of machine learning and consists of neural networks which have been inspired by the functioning of human neural system. These networks are very versatile and generalize very well in different conditions. Convolution Neural Network (CNN) is a special type of deep neural network usually applied to images. The functioning of the network is based on the way our visual cortex functions. Research shows that mammal brain cells consists of two different types of cells. The simple cells which can detect shapes within a restricted area of interest and complex cells which have larger receptive field. CNNs emulate this by using filters and depth of the network. Since ours is a camera-based DMS solution, it involves processing of the images received from camera and CNNs are used for this purpose.

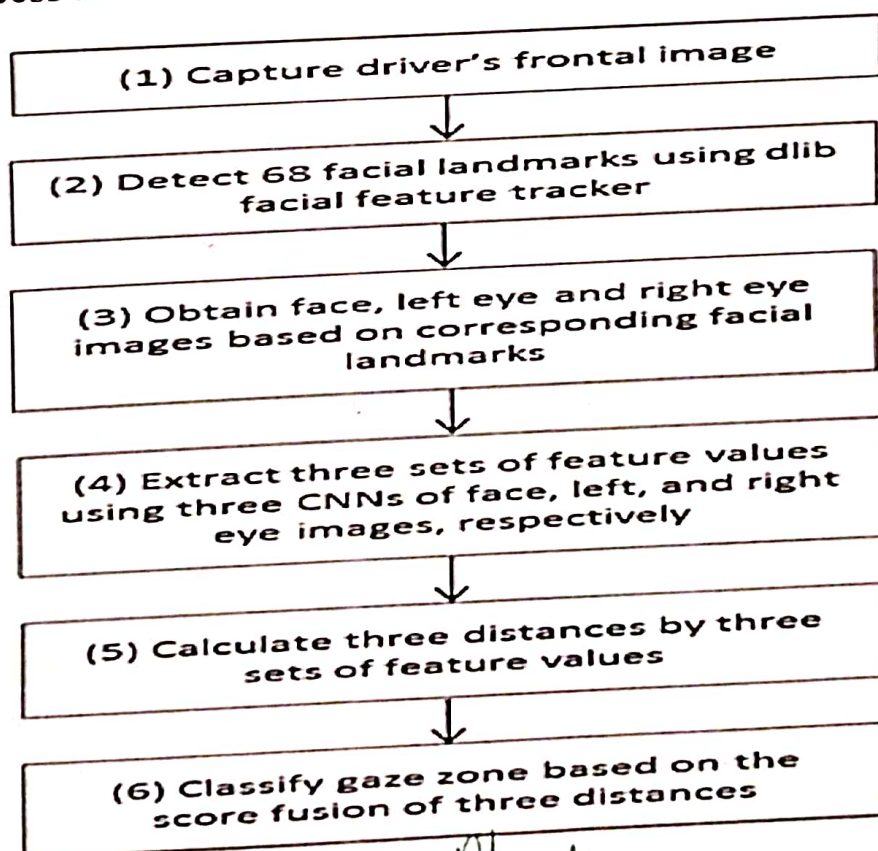
Abstract

Most driver-monitoring systems have attempted to detect either driver drowsiness or distraction, although both factors should be considered for accident prevention. Therefore, we propose a new driver-monitoring method considering both factors. We make the following contributions. First, if the driver is looking ahead, drowsiness detection is performed;




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otherwise, distraction detection is performed. Thus, the computational cost and eye-detection error can be reduced. Second, we propose a new eye-detection algorithm that combines adaptive boosting, adaptive template matching, and blob detection with eye validation, thereby reducing the eye-detection error and processing time significantly, which is hardly achievable using a single method. Third, to enhance eye-detection accuracy, eye validation is applied after initial eye detection, using a support vector machine based on appearance features obtained by principal component analysis (PCA) and linear discriminant analysis (LDA). Fourth, we propose a novel eye state-detection algorithm that combines appearance features obtained using PCA and LDA, with statistical features such as the sparseness and kurtosis of the histogram from the horizontal edge image of the eye. Experimental results showed that the detection accuracies of the eye region and eye states were 99 and 97%, respectively. Both driver drowsiness and distraction were detected with a success rate of 98%.

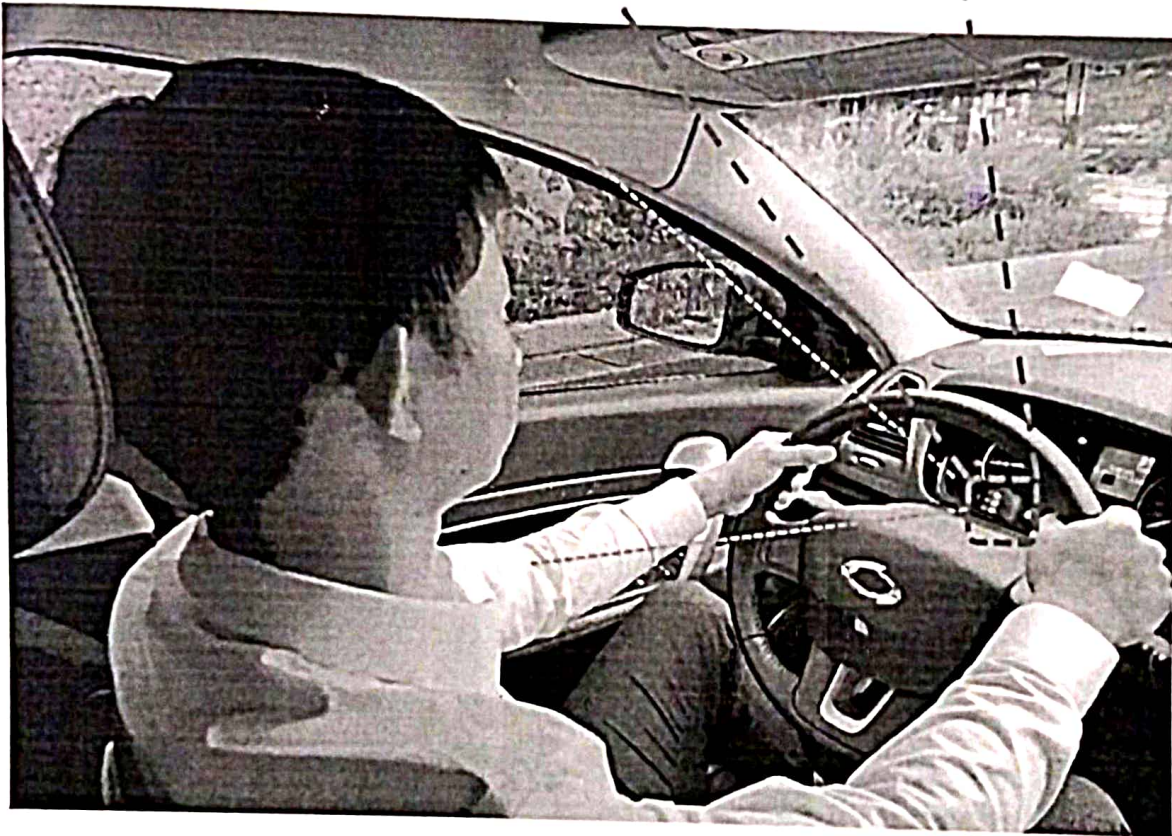


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Six NIR LEDs
of 850nm

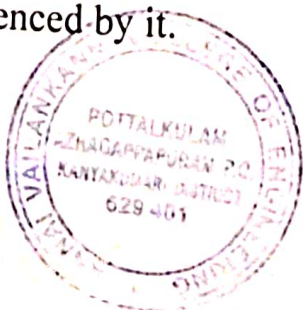
USB Camera with
NIR band pass filter



Experimental environment and proposed gaze detection system in vehicle environment

Conclusion

We have proposed a driver monitoring solution based on deep learning that can be run locally on any embedded platform. In our experience this gives better quality of results compared to conventional approaches. We expect a huge increase in deployment of Deep Learning based Artificial Intelligence solutions in the coming years and every field would be influenced by it.



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+91 8428334533

RB ENGINEERS & CONTRACTORS

TO

The Principal,
Annai Vailankanni College of Engineering,
AVK Nagar, Pottalkulam, Azhagappapuram
P.O., Kanyakumari District -629 401

Copy to : HOD/ CIVIL

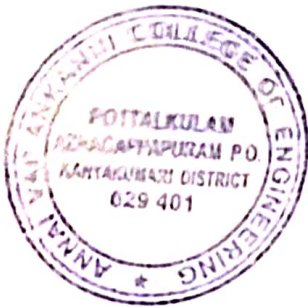
Dear Madam,

Sub: Project Acceptance and Sanction Order – Reg.

We are greatly privileged to offer the grant of Rs.1,55,000 to the project "Utilization of Waste Plastics, Sea Sand, and Stone Powder to Make Paving Blocks". The project will be carried forward during the period 25.11.2018 by the team members Mrs.S.Shobana Kumar of Civil Engineering Department, Annai Vailankanni College of Engineering, Kanyakumari Dist. We would extend our continuous support throughout the implementation of the project.

Thanking You

Yours Sincerely



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ANNAI VAILANKANNI COLLEGE OF ENGINEERING
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DEPARTMENT OF CIVIL ENGINEERING

Approval Form for Consultancy Projects

1. Project Title : Utilization of Waste Plastics, Sea Sand, and Stone Powder to Make Paving Blocks
2. Sponsoring Industry : "RB Engineers & Contractors", Chennai.
3. Investigators / Consultants / Co-investigators / Co-consultants : Mrs.S.Shobana Kumar HOD/ECE
4. Proposed Duration : 2018 to 2019
5. Expected Deliverables : The study report, Utilization of Waste Plastics, Sea Sand, and Stone Powder to Make Paving Blocks
6. Project Value : Rs. 1,55,000/-

Head of the Department

Signature of the Project Coordinator

Principal

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DEPARTMENT OF CIVIL ENGINEERING

CIRCULAR

Date : 13-DEC-2018

It is informed that our department received a requisition letter for consultancy service from "RB Engineers & Contractors", on this regard, it is planned to conduct a meeting tomorrow by 3.00 P.M at our faculty room. All the faculty members of our department are requested to attend the meeting.

Shobane
HOD

Circulated to :

- All Faculty members of Civil department

Copy to :

- The Principal



Prasanna

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DEPARTMENT OF CIVIL ENGINEERING

MINUTES OF MEETING

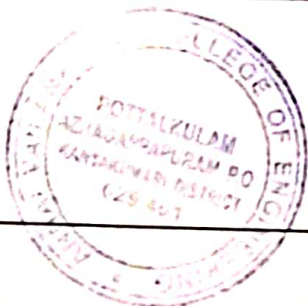
Date : 14-DEC-2018

Venue : CIVIL Department (Staff Room)

Agenda : Project Details – “ RB Engineers & Contractors “

The head of the Civil department has conducted the meeting with all the faculty members of Civil department. The following members were attended the meeting.

S.No	Name of the Faculty	Designation	Signature
1.	Dr. Stalin Jose	ASP	Stalin Jose
2.	Dr. Charles	ASP	Charles
3.	Mrs. Chella Priya	AP	Priya
4.	Ms. Anithra	AP	Anithra
5.	Ms. Suganya	AP	Suganya



[Handwritten Signature]

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Date : 24-Jan-2019

Mrs.S.Shobana Kumar,

HOD / Civil

To
RB Engineers & Contractors
Godavari Street,
Medavakkam,
Chennai,
Tamil Nadu 600100

Dear Sir,

Sub : Response letter for your letter dated 24-JAN-2019 - Reg.

We are happy to receive your letter requesting consultations on studies on Solar powered project.

We are happy to accept the project and nominate Assistant Professor, Mrs.S.Shobana Kumar, as a project coordinator and has expertise in various Solar systems. We would like to send Mrs.S.Shobana Kumar and Mrs.Anithra, Assistant Professors of our department to visit your company for further discussions for analysis and better understanding of your actual requirement on 30-JAN-2019. Your acknowledgement for this letter is highly appreciable.

Thanking You,

Place : *pottalkulam*

Date : *24-01-2019*

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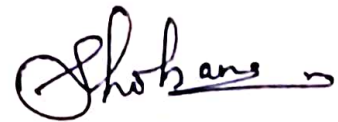
Annexure

BUDGET

Items	Cost (Rs)	Total Cost
Equipment & Components	80,000	100,000
Consumables	30,000	40,000
Travel	5,000	5,000
Documentation	5,000	5,000
Final Project Review	5,000	5,000
TOTAL		Rs. 1,55,000/-



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KANNIYAKUMARI DIST.





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+91 8428334533

RB ENGINEERS & CONTRACTORS

Date: ...27-11-2018...

To

Mrs.S.Shobana Kumar,
Head of the Department,
Department of Civil Engineering ,
Annai Vailankanni College of Engineering,
AVK Nagar, Pottalkulam, Azhagappapuram P.O,
Kanyakumari District -629 401

Respected Madam,

Subject: Sanction of Funds for Project "Utilization of Waste Plastics, Sea Sand, and Stone Powder to Make Paving Blocks"

I am pleased to inform you that your project titled "Utilization of Waste Plastics, Sea Sand, and Stone Powder to Make Paving Blocks" has been sanctioned for funding by RB Engineers and Contractors for the amount of Rs. 1,55,000. Duration of the project is 10 months.

This project holds significant promise in addressing environmental concerns associated with plastic waste and exploring innovative solutions for sustainable construction materials. The utilization of waste plastics, sea sand, and stone powder to manufacture paving blocks aligns perfectly with our organization's commitment to promoting eco-friendly practices and fostering research in sustainable development.

As the Principal Investigator, you are entrusted with the responsibility to effectively utilize the sanctioned funds for the successful execution of the project. We expect meticulous planning, diligent execution, and transparent reporting throughout the duration of the project.

Yours Sincerely,

PRINCIPAL
ANNAI VAILANKANNI COLLEGE OF ENGINEERING,
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Date : 14/02/2019

Mrs.S.Shobana Kumar,
Head of the Department,

STAMPED RECEIPT

7. Received with thanks from "RB Engineers & Contractors" a sum of Rs.1,55,000/- (One Lakh Fifty Five Thousand Rupees only) as payment for the proposed project on "Utilization of Waste Plastics, Sea Sand, and Stone Powder to Make Paving Blocks".



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Shobana
HOD / ECE



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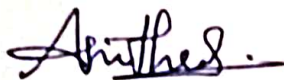
Website: www.avce.edu.in

DEPARTMENT OF CIVIL ENGINEERING

PROJECT COMPLETION REPORT

1	Project Coordinator (Name and Address)	Mrs.S.Shobana Kumar, Head of the Department
2	Name of the Company and Address	RB Engineers & Contractors Godavari Street, Medavakkam, Chennai, Tamil Nadu 600100
3	Project Title	Utilization of Waste Plastics, Sea Sand, and Stone Powder to Make Paving Blocks"
4	Date of Commencement of the Project	16 - Aug - 2018
5	Duration of the Project	Aug 2018 - Jun 2019
6	Date of Completion	July - 2019
7	Amount Sanctioned	Rs.1,55,000/-

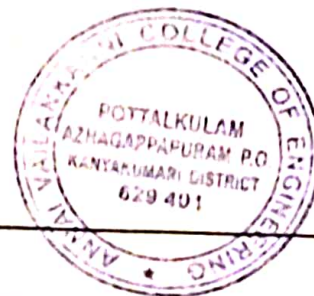
Project Coordinator


(Signature)


HOD/Civil



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UTILIZATION CERTIFICATE

Title of the Project : Utilization of Waste Plastics, Sea Sand and Stone Powder to make Paving Blocks

Date of Start : 27-11-2018

Date of Completion :

Name of the Project Principal Investigator(s) : Mrs.Shobana Kumar

Implementing Organization(s) : RB Engineers & Contractors

Sanction order Date :

Total amount that was received : Rs. 1,55,000

Actual Expenditure incurred : Rs. 1,55,000

Balance amount available : Nil

Name & Signature Office

Date :

Name & Signature of Head of the Department with Seal

Date :

Shobana

Name & Signature of Principal with Seal

Date :

[Signature]



[Signature]

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AVK Nagar, Pottalkulam, Azhagappapuram P.O, Kanyakumari District -629 401

UTILIZATION OF WASTE PLASTICS, SEA SAND AND STORE POWER TO MAKE PAVING BLOCKS

PRINCIPAL
ANNAI VAILANKANNI COLLEGE OF ENGINEERING
POTTALKULAM
AZHAGAPPAPURAM - 629 401
KANYAKUMARI DIST.



Abstract

India is confronted with the substantial issue of plastic debris due to the absence of an efficient waste management infrastructure. Recycled plastic has the potential to enhance various construction materials, such as roofing tiles, paving blocks, and insulation. The aforementioned materials possess notable attributes such as high strength, low weight, and exceptional resistance to extreme temperatures and humidity. The objective of this study is to ascertain feasible alternatives for manufacturing road paver blocks utilizing plastic waste (Polyethylene terephthalate (PET)), and M-sand (stone dust). Three variations of a discarded plastic cube measuring 150 mm × 150 mm × 150 mm were prepared for the experiment. The experimental findings indicated that a ratio of 1:4 was determined to be the most effective in achieving the desired level of compressive strength. I-section road and brick paver blocks were produced as an alternative to the traditional concrete ones. Compressive strength tests were performed on I-sections and brick paver blocks, revealing that the 1:4 mix ratio exhibited the highest average compressive strength for both materials. The findings indicated that including plastic waste positively impacted the compressive strength of the I-sections and brick paver blocks. Additionally, the quality grading of these materials was evaluated using an ultrasonic pulse velocity test. The ultrasonic pulse velocity test results demonstrated a high-quality grading for the I-sections and brick paver blocks. Scanning electron microscopy (SEM) tests assessed the microstructural behavior and performance. The results of this study demonstrate that incorporating plastic waste in combination with M-sand can effectively improve the mechanical characteristics of composite materials, rendering them viable for use in construction-related purposes.



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Conclusions

The experimental results acquired from the compressive strength tests of the mixtures incorporating plastic waste and M-sand point to the fact that the 1:4 ratio, with an M-sand composition of 80%, produced the maximum compressive strength for both the I-section road paver blocks and the brick paver blocks. This specific ratio culminated in average compressive strengths of 22.47 N/mm² for the I-section and 25.27 N/mm² for the plastic bricks. In addition, the ultrasonic pulse velocity tests rendered exceptional quality grading for both the I-section and plastic bricks, with average pulse speeds of 4.45 m/ μ s and 4.70 m/ μ s, respectively.

These findings suggest that the compressive strength of the waste plastic cube is contingent on the ratio of plastic waste to M-sand, as well as the thoroughness of the mixing process. The 1:4 ratio demonstrated superior compressive strength, while reducing plastic waste resulted in diminished strength.

The study indicates that recycling plastic waste, specifically Polyethylene Terephthalate (PET), into road pavers, possesses considerable potential as a sustainable construction material in India. Exploiting plastic waste in the form of road pavers brings several benefits, including waste diminution, resource preservation, and environmental advantages.

The casting process combines plastic waste with heated sand to yield road pavers characterized by enhanced strength and durability. The inclusion of plastic waste not only addresses the pressing issue of plastic pollution and contributes to the circular economy, promoting the recycling and reuse of materials. Furthermore, the road pavers display satisfactory mechanical properties, indicating their appropriateness for load-bearing applications in road construction and other public spaces.

By embracing such innovative strategies, India can alleviate plastic waste, while simultaneously developing eco-friendly and sustainable infrastructure. This research underscores the potential of plastic waste recycling as a viable solution to environmental concerns, advocating for a greener future in the construction industry.



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Approval Form for Consultancy Projects

1. Project Title : Solar Powered Tricycle for Vending Women
2. Sponsoring Industry : "INSTRUMENT INDIA", Nagercoil.
3. Investigators / Consultants / Co-investigators / Co-consultants : Mr.G.Gaswin Kastro AP/ECE
4. Scope of the Project : To design of Solar Powered Tricycle for Fish Vending Women.
5. Proposed Duration : July 2018 to May 2019
6. Expected Deliverables : The study report, Solar Powered Tricycle for Fish Vending Women.
7. Project Value : Rs. 2,25,000/-


Duration Details:

Category	Duration
Phase 1	July 2018
Phase 2	November 2018
Phase 3	March 2019



Head of the Department


Signature of the Project Coordinator

DEPARTMENT OF EEE
ANNA VAILANKANNI COLLEGE OF ENGINEERING
POTTALKULAM
AZHAGAPPAPURAM PO
KANYAKUMARI DISTRICT - 629 401


Principal
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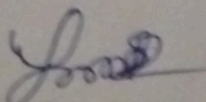
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

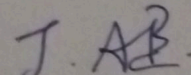
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1. Project Title : Solar Powered Tricycle for Vending Women
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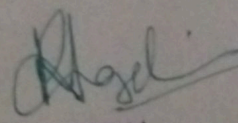

Head of the Department


Signature of the Project Coordinator

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POTTALKULAM
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CIRCULAR

Date : 15-Feb-2018

It is informed that our department received a requisition letter for consultancy service from "INSTRUMENT INDIA", on this regard, it is planned to conduct a meeting tomorrow by 2.00 P.M at our faculty room. All the faculty members of our department are requested to attend the meeting.

HOD

DEPARTMENT OF ECE
ANNAI VAILANKANNI COLLEGE OF ENGINEERING
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KANYAKUMARI DISTRICT 629 401

Circulated to :

- All Faculty members of ECE department

Copy to :

- The Principal



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

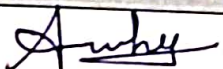
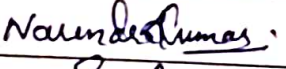
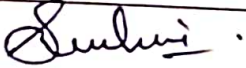
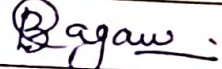
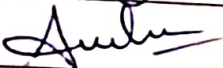
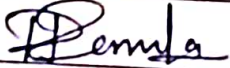

MINUTES OF MEETING

Date : 16-Feb-2018

Venue : ECE Department (Simulation Lab)

Agenda : Project Details – “Instrument India “

The head of the ECE department has conducted the meeting with all the faculty members of ECE department. The following members were attended the meeting.

S.No	Name of the Faculty	Designation	Signature
1.	Dr. Abilash	ASP	
2.	Dr. Narendra Kumar A	ASP	
2.	Mrs. Sreeja	AP	
4.	Mrs. Bagavathy	AP	
5.	Mrs. Anusha Vincent	AP	
6.	Mrs. P. Renuka	AP	
7.	Mrs. Mary Jeya soni S	AP	



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Mr.G.Gaswin Castro,

Date : 07-Mar-2018

HOD / ECE

To

INSTRUMENT INDIA

7/19-7, Poonga Nager ,

Thirupathisaram,

Nagercoil – 629 901

Dear Sir,

Sub : Response letter for your letter dated 07-Feb-2018 - Reg.

We are happy to receive your letter requesting consultations on studies on Solar powered project.

We are happy to accept the project and nominate Assistant Professor, Mr.G.Gaswin kastro, as a project coordinator and has expertise in various Solar systems. We would like to send Mr.G.Gaswin kastro and Mr.Arockia Prince, Assistant Professors of our department to visit your company for further discussions for analysis and better understanding of your actual requirement on 15-Mar-2018. Your acknowledgement for this letter is highly appreciable.

Thanking You,

Place : *pottalkulam*

Date : *07-03-2018*

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INSTRUMENT INDIA

(Electronics Lab Equipments Manufacturer & Service)
7/19-7, Poonga Nager, Thirupathisaram, Nagercoil - 629901.

☎: 9994720685, 9442710685

✉: instrumentindia.edu@gmail.com

GSTIN: 33DQBPB6180A1ZJ

15-March -2018

To

Mr. G. Gaswin Kastro,
The Head of the Department,
Department of ECE,
Annai Vailankanni College of Engineering,
AVK Nager,
Kanyakumari Dist - 629 401.

Dear Sir,

We are pleased to invite your faculty member on 20-Mar-2018 of this month for face-to-face discussion with our team members regarding the requirement and knowledge sharing. We would like, your team members to have a presentation on their ideas and technical ideas for better knowledge sharing. By considering your expertise and technical competencies in this field, we hope you can successfully complete the project work.



With regards,

Jagan
Agel

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22-March-2018

Mr.G.Gaswin Kastro,
The Head of the Department / ECE

To

INSTRUMENT INDIA
7/19-7, Poonga Nager ,
Thirupathisaram,
Nagercoil – 629 901

Subject : Acceptance for Solar Powered Tricycle for Fish Vending Women – Project –Reg.

As per your discussion with our team member on 20-Mar-2018. I came to know the discussions for the model of the project. We are happy to carry out the project as per your requirements from March 2019 once the budget got approved. Enclosed herewith is budget estimate and timeline for the same.

Once again, I thank you for believe in our team and we assure you of our best services and look forward for a relationship in future

Thanking You

Enclosure : Budget Details

Place : Kanyakumari

Date : 22-Mar -2018

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Annexure


BUDGET

Items	Cost (Rs)	Total Cost
Man power	80,000	1,00,000
Equipment & Components	1,00,000	1,20,000
Consumables	80,000	1,00,000
Travel	5,000	5,000
Documentation	5,000	5,000
Final Project Review	20,000	20,000
TOTAL		Rs. 3,50,000/-


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INSTRUMENT INDIA

(Electronics Lab Equipments Manufacturer & Service)
7/19-7, Poonga Nager, Thirupathisaram, Nagercoil-629901.

☎: 9994720685, 9442710685

✉: instrumentindia.edu@gmail.com

GSTIN: 33DQBPB6180A1ZJ

Date: 14/07/2018...

To

Mr. G. Gaswin Kastro,
Head of the Department,
Department of ECE,
Annai Vailankanni College of Engineering,
AVK nagar, Pottalkulam,
Kanyakumari - 629701

Subject: Sanction Letter for the Project "Solar Powered Tricycle for Fish Vending Women"

Dear Mr. G. Gaswin Kastro,

We are pleased to inform you that your proposed project titled "Solar Powered Tricycle for Fish Vending Women" has been sanctioned for funding by M/s. Instrument India. We appreciate the effort and creativity you have demonstrated in conceptualizing this project to empower women engaged in fish vending with a sustainable and eco-friendly mode of transportation.

Project Details:

Project Title: Solar Powered Tricycle for Fish Vending Women

Project Duration: July 2018 to May 2019

Project Supervisor: Mr. G. Gaswin Kastro

Funding Details:

Total Project Budget: Rs. 2,25,000.00

Funding Allocation: Phase 1: Rs. 1,00,000 by July 2018

Phase 2: Rs. 1,00,000 by November 2018

Phase 3: Rs. 25,000 by March 2019

Project Objectives:

- To design and develop solar-powered tricycles tailored for fish vending women.
- To provide training on the operation and maintenance of solar-powered tricycles.
- To promote the adoption of sustainable and eco-friendly transportation solutions.
- To empower women engaged in fish vending with improved mobility and income-generating opportunities.

Project Supervisor will be responsible for overseeing the implementation of the project, ensuring its timely completion, and maintaining quality of work.

Terms and Conditions:

The sanctioned funds must be utilized exclusively for the project's intended purposes as outlined in the proposal.

Regular progress reports must be submitted to National Instruments to monitor the project's progress.

Any significant changes to the project plan or budget must be communicated and approved by National Instruments in advance.

We trust that you will execute this project with utmost dedication and professionalism. We look forward to witnessing the positive impact of the "Solar Powered Tricycle for Fish Vending Women" project on the lives of women engaged in fish vending in your community.

Please sign and return a copy of this sanction letter to acknowledge your acceptance of the terms and conditions outlined above.

Thank you for your commitment to making a difference in your community through innovative and sustainable initiatives.



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Sincerely yours,

PROPRIETOR



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Date : 18/07/2018

Mr. G.Gaswin Castro,
Head of the Department,

STAMPED RECEIPT

Received with thanks from "INSTRUMENT INDIA" a sum of Rs.3,50,000/- (Three Lakh Fifty Thousand Rupees only) as payment for the proposed project on "Solar Powered Tricycle for Fish Vending Women".

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PROJECT COMPLETION REPORT

1	Project Coordinator (Name and Address)	Mr. G.Gaswin Kastro, Head of the Department
2	Name of the Company and Address	INSTRUMENT INDIA 7/19-7, Poonga Nager , Thirupathisaram, Nagercoil – 629 901
3	Project Title	Solar Powered Tricycle for Fish Vending Women
4	Date of Commencement of the Project	12-Feb-2018
5	Duration of the Project	July 2018 – May 2019
6	Date of Completion	12-Apr-2019
7	Amount Sanctioned	Rs.3,50,000/-

Project Coordinator

J. AR.
(Signature)



J. G. P.
HOD/ECE

DEPARTMENT OF ECE
ANNAI VAILANKANNI COLLEGE OF ENGINEERING
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UTILIZATION CERTIFICATE

Title of the Project : Solar Powered Tricycle for Fish Vending Women

Department : Electronics and Communication Engineering

Date of Start : 14-07-2018

Date of Completion : July 2018 to May 2019

Name of the Project Principal Investigator(s) : Mr.G.Gaswin Kastro

Implementing Organization(s) : Instrument India

Total amount that was received : Rs. 2,25,000

Actual Expenditure incurred : Rs. 2,25,000

Balance amount available : Nil

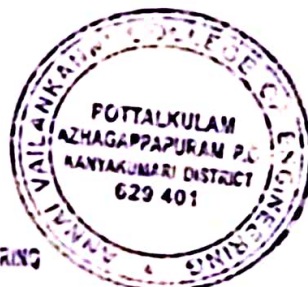
Name & Signature Office

Date :

Name & Signature of Head of the Department with Seal

Date :

Gaswin
 DEPARTMENT OF ECE
 ANNA VAILANKANNI COLLEGE OF ENGINEERING
 POTTALKULAM
 KANYAKUMARI DISTRICT
 629 401



Name & Signature of Principal with Seal

Date :

Gaswin
 PRINCIPAL
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DETAILS REPORT

Solar Powered Tricycle for Fish Vending Women

Summary

A tricycle that runs on solar power and that can be easily operated by women to carry fishes is designed that solves the various problems faced by the fish vending women of Tamilnadu and it is also eco friendly since it runs on Solar power

Objectives

The objectives of a solar-powered tricycle for fish vending women are to:

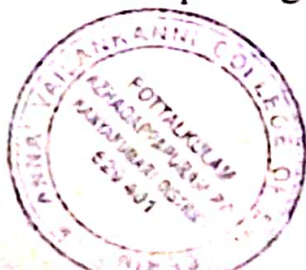
- **Solve problems:** The tricycle is designed to address issues faced by fish vendors in Tamil Nadu.
- **Be eco-friendly:** The tricycle is powered by solar energy, making it an eco-friendly option.
- **Promote green transportation:** The tricycle can be used to promote green and sustainable transportation.
- **Be easy to operate:** The tricycle is designed to be easy for women to operate.


Solar-powered tricycles are battery electric vehicles (BEVs) that can be charged by a photovoltaic system or by plugging into the electricity grid. They can be a vital alternative to fueled automobiles, especially in countries with long sunny seasons like India.

Introduction

Abstract:

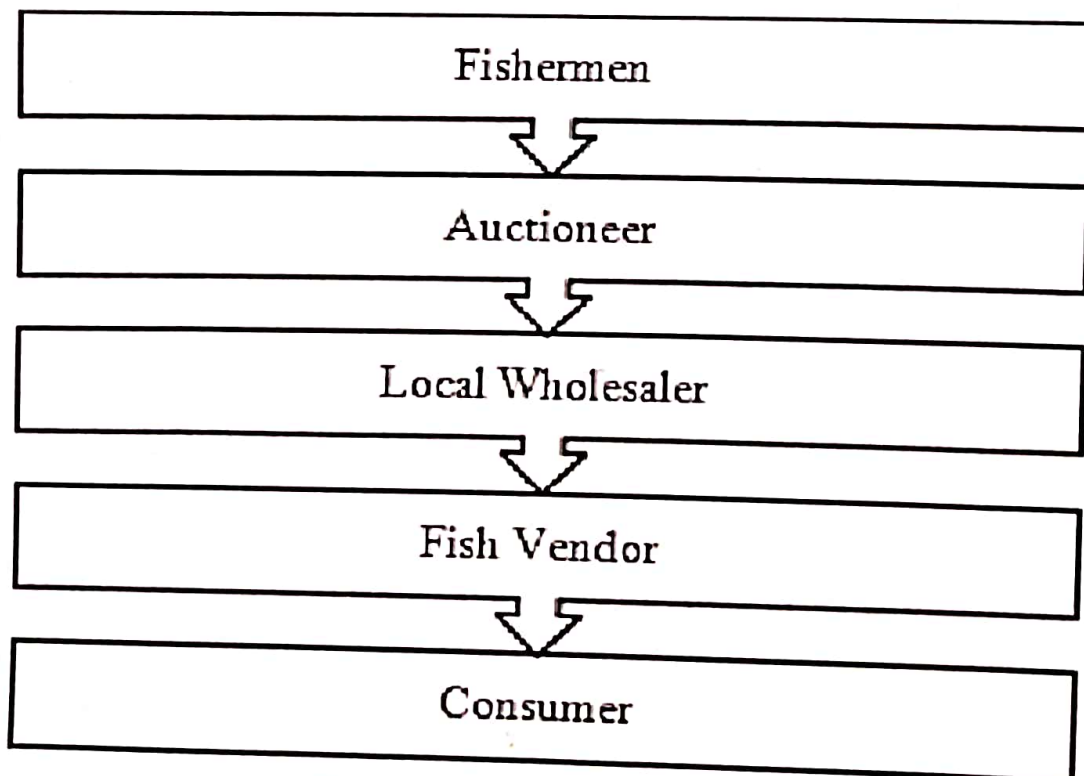
The small scale fish vending women of Tamilnadu face several problems in transporting the fishes from the fish landing center to the




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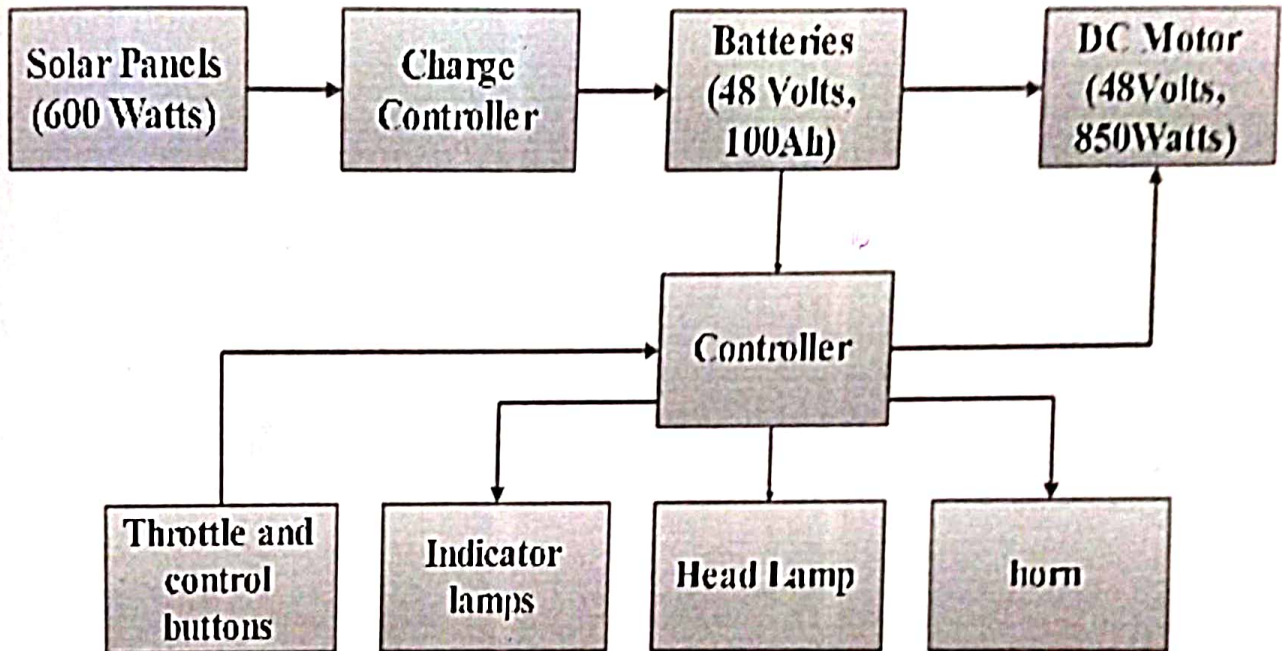
market. Fish being a highly perishable product requires fast transportation to the market. For transporting the fishes the women depend on public transport which is not convenient to carry fishes and often not punctual. Another option for them is to use hired vehicles. Hired vehicles are not safe for women and it costs much. They also need to pay for loading and unloading the fishes. We have designed a tricycle that runs on solar power and that can be easily operated by women to carry fishes. The proposed vehicle solves the various problems faced by the fish vending women and it is also eco friendly since it runs on solar power. This project was funded by IEEE Artisanal Deep Sea Fishers SIGHT.

Connection Diagram



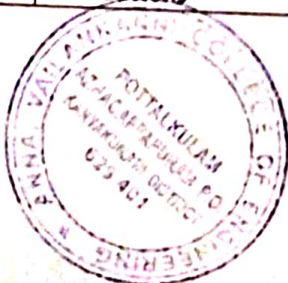
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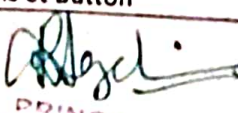
Block Diagram



Material Required :

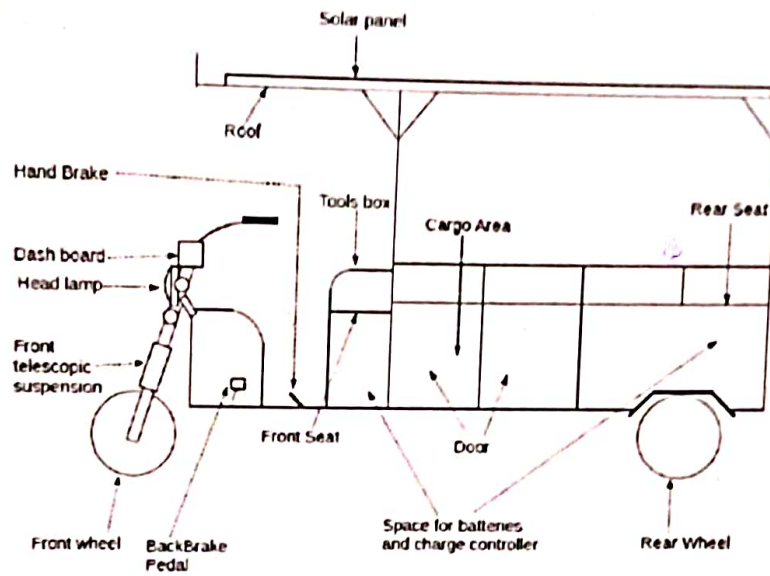
S.NO	EQUIPMENT NAME	COMPONENTS At WATTS
1	Solar Pannel	48V,20 Watts
2	Charging Circuits	230V, INPUT 12V,DC
3	Battery	48V,80 Watts
4	Hub Motor	48V,800Watts power with speed 35 Km
5	Wheels	10 Inch Wheel
6	Steering	
7	Throttle	
8	Vehicle Setup	Ms steel metal
9	Dynamo	48Vv,40Watts
10	Microcontroller	PICI 6f72 Microcontroller
11	Finger Print Module	r303 Finger print module
12	LCD Display	16*2 LCD Display
13	Two Buttons	Push Buttons et Button



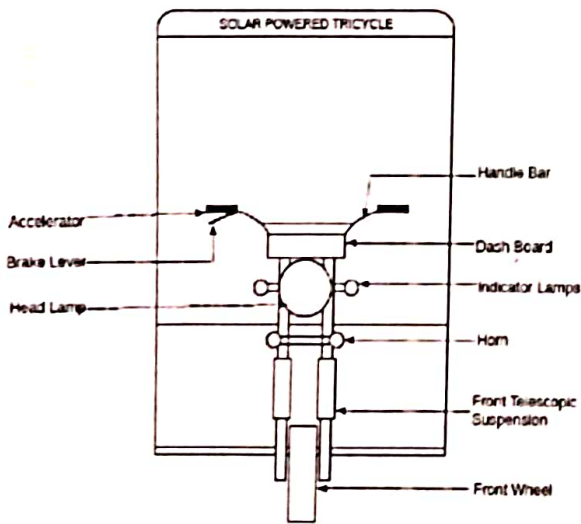

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Solar Powered Tricycle for Fish Vending Women

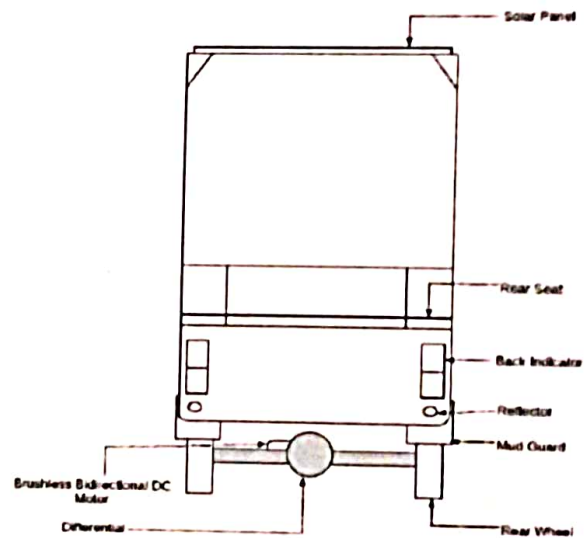
Model Diagram:



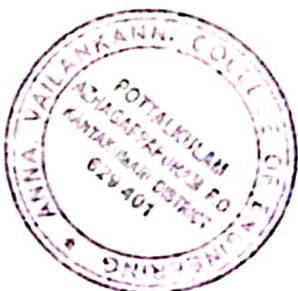
a) Side view of the tricycle



a) Front view of the tricycle



a) Rear view of the tricycle



[Handwritten Signature]

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Final output Review :

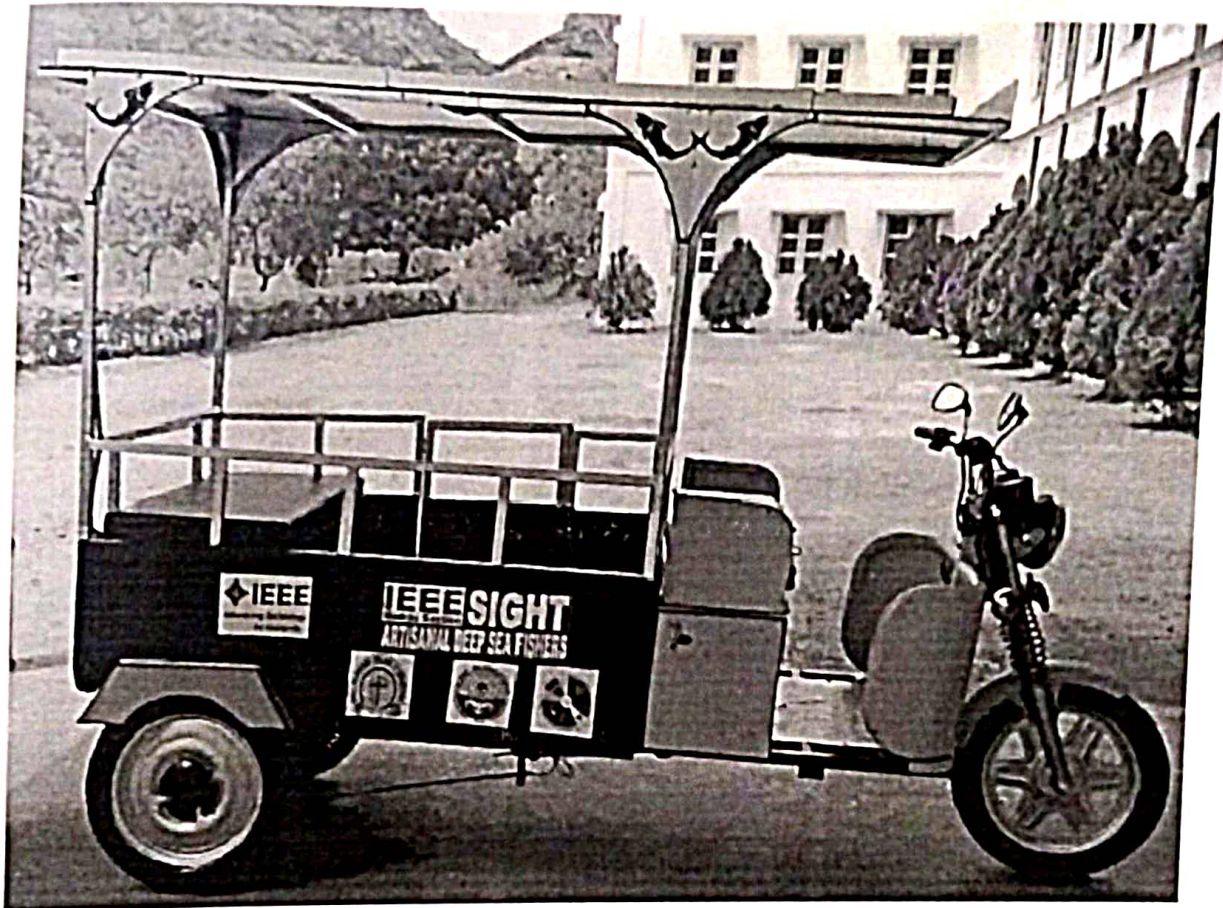
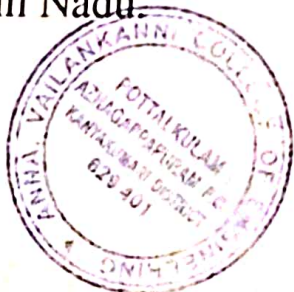


Fig 5. Fabricated solar powered tricycle

Conclusion :

The solar-powered tricycle for fish vending women is a battery electric vehicle (BEV) that is designed to be easy to operate and eco-friendly. It can be charged by plugging it into the electricity grid or by using a photovoltaic system. The tricycle was designed to address the challenges faced by women who sell fish in Tamil Nadu.



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KANTAKUMARI DIST.

Annai Vailankanni Educational & Charitable Trust
 Judges Colony,
 Kottivakkam,
 Chennai 600 041

Income & Expenditure Account for the Year ended 31st March 2019

Particulars	Schedule	Trust	College	Consolidated
		Amount (in 0)	Amount (in 0)	Amount (in 0)
Direct Income	VII	-	3,68,08,199	3,68,08,199
Direct Expenditure	VIII	-	40,97,861	40,97,861
Gross Income / Contribution		-	3,27,10,338	3,27,10,338
Indirect Income	IX	-	8,80,585	8,80,585
Indirect Expenditure	X	23,600	2,76,03,386	2,76,26,986
Net Income before Interest and Depreciation		(23,600)	59,87,537	59,63,937
Interest and other Financial Charges	XI	54,79,863	19,321	54,99,184
Net Income Before Depreciation		(55,03,463)	59,68,216	4,64,753
Depreciation	IV	60,26,935	27,93,201	88,20,136
Net Income before Income Tax		(1,15,30,398)	31,75,015	(83,55,383)
Provision for Income Tax		-	-	-
Net Income After Income Tax		(1,15,30,398)	31,75,015	(83,55,383)

As per our report of even date

For Srinivas And Gopal
 Chartered Accountants

(Signature)



T.Srinivas
 Proprietor
 Membership No.: 200-023535
 F. No: 0040195
 Place: Chennai
 Date: 24.09.2019

(Signature)

For Annai Vailankanni Educational & Charitable Trust

(Signature)

D. Peter Jesudhas
 Managing Trustee

PRINCIPAL
 ANNAI VAILANKANNI COLLEGE OF ENGINEERING
 POTTALKULAM
 AZHAGAPPAPURAM - 629 401
 KANYAKUMARI DIST.

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