KRISHNASAMY
College of
ENGINEERING & TECHNOLOGY
Approved by AICTE & Affiliated to Anna University
Anand Nagar, Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109, Tamil Nadu.
(04142) 285 601 - 604 www.kcet.in info@kcet.in

LIST OF RESEARCH GRANTS
Academic Year (2019-2020)

Name of the Research Project/ Endowment	Name of the Principal Investigator/ Co-investigator	Department of Principal Investigator	Amount Sanctioned INR in Lakhs	Duration of the Project	Name of the Funding Agency	Type (Government/non-Government)
DESIGNING THE AIR QUALITY CONTROL SYSTEM IN A VEHICLE FOR TRAFFIC POLLUTION	Er. R. RAJENDRAN	ELECTRONICS AND COMMUNICATION ENGINEERING	0.050	6 Months	ARUNAI CHARITABLE TRUST	NON-GOVERNMENT
A COMPACT GESTURE RECOGNITION FOR VISUALLY CHALLENGED PEOPLE USING MACHINE LEARNING	Er. S. RAMESH	COMPUTER SCIENCE AND ENGINEERING	0.050	6 Months	ARUNAI CHARITABLE TRUST	NON-GOVERNMENT
WOMEN SAFETY USING IBEACON TECHNOLOGY	Er. S. AMIRTHA	ELECTRICAL AND ELECTRONICS ENGINEERING	0.050	6 Months	ARUNAI CHARITABLE TRUST	NON-GOVERNMENT
STUDY ON PARTIAL REPLACEMENT OF COARSE AGGREGATE BY RUBBER IN CONCRETE	Er. E. VAIRAVI	CIVIL ENGINEERING	0.050	6 Months	ARUNAI CHARITABLE TRUST	NON-GOVERNMENT
STUDY AND EXPERIMENTAL ANALYSIS OF HYDROPHOBIC CONCRETE BY USING OLEIC ACID	Er. A. RAJESWARI	CIVIL ENGINEERING	0.075	6 Months	MAJESTIC BUILDERS	NON-GOVERNMENT
TREATMENT OF SUGARCANE WASTE WATER USING PSEUDOMONAS PUTIDA	Er. E. SANTHIPRIYA	CIVIL ENGINEERING	0.075	6 Months	MAJESTIC BUILDERS	NON-GOVERNMENT
		Total Amount	**0.350**			

KRISHNASAMY COLLEGE OF ENGG. & TECH. CUDDALORE 607 109.

Dr.G.ELANGO, M.E.,Ph.D.,
PRINCIPAL
KRISHNASAMY COLLEGE OF
ENGINEERING & TECHNOLOGY,
Kumarapuram, Cuddalore

To

The Chairman,
Arunai Charitable Trust,
157/16, Siva Flats,
20th Main Road, Anna Nagar,
Chennai – 600 040.

31.08.2019

Respected Sir,

Sub: Submission of Application for Financial grand for the students' projects – 2019-20-Krishnasamy College of Engineering & Technology, Cuddalore – Reg.

Ref: Your office letter, dated 29.07.2019

With reference to your office letter cited above, I am herewith submitting the list of projects of our students which are recommended by our Research and Development Cell for financial grant after obtaining the approval from our Chairman, Dr. K. Rajendran. The particulars of the project, students name and Project supervisor name for the academic year 2019 -20 is enclosed herewith for your kind perusal.

Guide Name and Institution Address	Title of the Project	Students Name	Department of the Students
Mr.R.Rajendran, AP Krishnasamy College of Engineering and Technology, Cuddalore.	Designing the air quality control system in a vehicle for traffic pollution	Jeevitha.G Karthika.R	Electrical and Communication Engineering
Mr.S.Ramesh, AP Krishnasamy College of Engineering and Technology, Cuddalore.	A compact gesture recognition for visually challenged people using machine learning	Abinaya.P Fahima.A Nivetha.V Rehana.Y	Computer Science and Engineering
Mrs.S.Amirtha, AP Krishnasamy College of Engineering and Technology, Cuddalore.	Women safety using IBEACON technology	Priyadharshini.A Ramya.R	Electrical and Electronics Engineering
Ms.E.Vairavi Krishnasamy College of Engineering and Technology, Cuddalore.	Study on partial replacement of coarse aggregate by rubber in concrete	Krishnaraj.R Prem kumar.B Sugumar.S	Civil Engineering

Elango

Digitally signed by Elango
DN: c=IN, o=Personal, title=3550, pseudonym=ffdef84faf2e4a8eafafb08e322dfe7b, 2.5.4.20=2a7905a4396f4300f736fdf2e8fc6af0c43725b5b0a690b75e181928358753 7e, postalCode=607302, st=Tamil Nadu, serialNumber=978aa0d864f1622fab51249 8c042793859e565c25a736e14d92110054bc0ee5d, cn=Elango
Date: 2024.07.22 16:49:09 +05'30'

I request, the recommended projects may kindly be considered and financial grant be sanctioned from your end.

Thanking you,

Yours truly,

PRINCIPAL

31/8/19

ARUNAI CHARITABLE TRUST

(Estd 1994)

Chairman	Managing Trustee	Secretary	Treasurer	Jt. Secretary
N.C.Vivekananthan	**A.S.Subramanian**	**Prabhakaran.V**	**K.Chandrasekaran**	**S. Ganesh**
Cell : 99442061799	Cell : 9442061799	Cell : 9962343400	Cell : 9444793700	Cell : 98843 06830

Chennai

09.09.2019

To
Ao/cashier
for n.a
13/9/19

The Chairman,
Krishnasamy college of Engineering & Technology,
Nelikuppam Main Road,S Kumarapuram,
Cuddalore – 607 109

Sub : - Financial Grant to Recommended student – Reg.
Ref: - Recommendation letter received from you.

With reference to the recommended applications for financial assistance for the student projects from you on 31.08.2019, We are enclosing the Karurvysya bank cheque No.000549 dated 09.09.2019 for Rs.20,000/– towards financial assistance to the recommended Students Projects. Kindly acknowledge the receipt by signing the enclosed voucher and return back to us.
Thanking you.

Your Frienly,
For Arunai Charitable Trust

K.Chandrasekaran
(Treasurer)

Encl: KVB Cheque No. 000549 & Voucher

.Address for Communicatio : **K.Chandrasekaran**
157/16,Siva Flatss,20th Main Road,AnnanagarWest,Chennai-600 040

Karur Vysya Bank

THE KARUR VYSYA BANK LIMITED दि करूर वैश्य बैंक लिमिटेड
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09092019

Pay अदा करें Krishnasamy college of Engineering & Technology

Bearer
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Rupees रुपये Twenty thousand only

₹ 20,000/-

A/c. No. खाता क्र. 1154172000004904

INITIAL आद्याक्षर

For ARUNAI CHARITABLE TRUST

TRUSTEE(S)/AUTHORISED SIGNATORY

Please sign above

"000549" 600053005: 000000" 31

MANIPAL TECHNOLOGIES LIMITED, CHENNAI / CTS-210

ARUNAI CHARITABLE TRUST

(Estd 1994)

#157/16,Siva Flatss,20th MainRoad,AnnanagarWest,Chennai -600 040

Research/Project Grant 2019-2020

UTILISATION CERTIFICATE

1 Name of the guide & Address : Mr. R. RAJENDRAN
Assistant Professor
Department of Electrical and communication Engineering

2 Name of the student(s) : G. Jeevitha
R. Karthika

3 Title of the project : Designing the our quality control system in a vehicle for traffic pollution.

4 Department/Institution Name & Address : Electronics and communication Engineering / Krishnasamy college of Engineering and technology, S. Kumarapuram, cuddalore 607 109

It is certified that a sum of Rs 5000 (five thousand only) sanctioned by the Trust for carrying out above mentioned project has been utilized for the purpose for which it was sanctioned.

R. Raj
Signature of the Guide

Signature of the HOD

Signature of the Principal

DESIGNING THE AIR QUALITY CONTROL SYSTEM IN A VEHICLE FOR TRAFFIC POLLUTION

A PROJECT REPORT

Submitted by

G.JEEVITHA (421316106006)

R.KARTHIKA (421316106009)

In partial fulfillment for the award of the degree

Of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

KRISHNASAMY COLLEGE OF ENGINEERING & TECHNOLOGYCUDDALORE- 607109

ANNA UNIVERSITY:: CHENNAI – 600025

SEPTEMBER-2020

ABSTRACT

The Emissions of many air pollutants have been shown to have variety of negative effects on public health and the natural environment. Emissions that are principal pollutants of concern include: Hydrocarbons- A class of burned or partially burned fuel, hydrocarbons are toxins. Hydrocarbons are a major contributor to smog, which can be a major problem in urban areas. Prolonged exposure to hydrocarbons contributes to asthma, liver disease, lung disease, and cancer. Regulations governing hydrocarbons vary according to type of engine and jurisdiction. Methane is not directly toxic, but is more difficult to break down in a catalytic converter, so in effect a "non-methane hydrocarbon" regulation can be considered easier to meet. Since methane is a greenhouse gas, interest is rising in how to eliminate emissions of it. This project attempts to develop an effective solution for pollution monitoring & Controlling by using RFID & IOT on a real time basis namely real time wireless air pollution controlling system. Commercially available gas sensors for sensing concentration of gases like CO2, CO are calibrated using appropriate calibration technologies.

KRISHNASAMY
College of Engineering & Technology

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Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109.

Certificate

This is to certify that ~~Mr.~~ / Ms. JEEVITHA. G (ECE - IV YEAR) of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled DESIGNING THE AIR QUALITY CONTROL SYSTEM IN A VEHICLE FOR TRAFFIC POLLUTION. under Research / Project grant sponsored by the Arunai Charitable Trust during the academic year 2019- 2020

Principal

Dr. K. Rajendran
Chairman

KRISHNASAMY
College of Engineering & Technology

(Approved by AICTE & Affiliated to Anna University - Chennai)

Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109.

Certificate

This is to certify that ~~Mr.~~ / Ms. KARTHIKA.R (ECE - IV YEAR) of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled DESIGNING THE AIR QUALITY CONTROL SYSTEM IN A VEHICLE FOR TRAFFIC POLLUTION. under Research / Project grant sponsored by the Arunai Charitable Trust during the academic year 2019- 2020

Principal

Dr. K. Rajendran
Chairman

ARUNAI CHARITABLE TRUST

(Estd 1994)

#157/16,Siva Flatss,20th MainRoad,AnnanagarWest,Chennai -600 040

Research/Project Grant 2019-2020

UTILISATION CERTIFICATE

1 Name of the guide & Address : S. RAMESH
Assistant Professor
Department of Computer Science & Engineering

2 Name of the student(s) : P. Abinaya
A. Fahima
V. Nivetha
Y. Rehana

3 Title of the project : A compact Gesture Recognition for visually challenged people using Machine learning.

4 Department/Institution Name & Address : Computer Science & Engineering
Krishnasamy College of Engineering and Technology, S. Kumarapuram, Cuddalore. 607 109

It is certified that a sum of Rs 5000 (Five thousand only) sanctioned by the Trust for carrying out above mentioned project has been utilized for the purpose for which it was sanctioned.

Signature of the Guide

C. Radha
Signature of the HOD

Signature of the Principal

A COMPACT GESTURE RECOGNITION FOR VISUALLY CHALLENGED PEOPLE USING MACHINE LEARNING

A PROJECT REPORT

Submitted by

P.Abinaya

A.Fahima

V.Nivetha

Y.Rehana

In partial fulfillment for the award of the degree

Of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE AND ENGINEERING

KRISHNASAMY COLLEGE OF ENGINEERING & TECHNOLOGY CUDDALORE- 607109

ANNA UNIVERSITY:: CHENNAI – 600025

SEPTEMBER-2020

A compact Gesture Recognition for Visually Challenged People using Machine Learning

I. ABSTRACT

In our society we have people with disabilities. The technology is developing day by day but since no significant developments are taken for the betterment of these blind people.This innovation is mainly focuses on sign way of communication is one of the most effective communication tool for the people who are not able to speak or hear anything. It is also useful for the person who are able to speak but not able to hear or vice versa. Sign language is boon for the deaf and dumb people. Sign language is the combination of different hand gesture, shape, size and movement of human hands and other facial expressions. With the help of sign language, these physical impaired people express their emotions and thoughts to other person. Hence sign language recognition has become empirical task. The main aim is to developing an deaf and dumb gesture recognize system for establishing communication between the deaf & dumb and the blind people using machine learning and image processing. The proposed system is able to recognize static and dynamic gestures using k-nearest neighbor and SVM classification methods. This system can learn to classify the specific gesture patterns of any person.

II. INTRODUCTION

In our society we have people with disabilities. The technology is developing day by day but no significant developments are undertaken for the betterment of these people. About nine billion people in the world are deaf and dumb. Communications between deaf-mute and a visually challenged person have always been a challenging task. In the current system, a glove with attached flex sensor is worn on the hand. The sensor attached with glove captures the hand movement and position. In this method hand detection is not required. One of the advantage of this method that it provides accurate position, orientation of the hand, fingers of the palm. The demerit of this method is that it requires the user to connect with the computer physically which make it very uncomfortable technique. This method is also expensive due to the use of sensor gloves.

Sign language helps deaf and dumb people to communicate with blind people. Nowadays, the importance of adaptive and personalized human-computer interfaces, as opposite to systems designed for an "average" user, is widely recognized in a large variety of applications. Machine learning algorithms for automatic analysis of facial expressions and body

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Certificate

This is to certify that ~~Mr~~. / Ms. ABINAYA.P (CSE - IV YEAR) of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled A COMPACT GESTURE RECOGNITION FOR VISUALLY CHALLENGED PEOPLE USING MACHINE LEARNING. under Research / Project grant sponsored by the Arunai Charitable Trust during the academic year 2019- 2020.

Principal

Dr. K. Rajendran
Chairman

KRISHNASAMY
College of Engineering & Technology

(Approved by AICTE & Affiliated to Anna University - Chennai)
Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109.

Certificate

This is to certify that ~~Mr.~~ / Ms. FAHIMA . A (CSE - IV YEAR) of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled A COMPACT GESTURE RECOGNITION FOR VISUALLY CHALLENGED PEOPLE USING MACHINE LEARNING. under Research / Project grant sponsored by the Arunai Charitable Trust during the academic year 2019- 2020

Principal

Dr. K. Rajendran
Chairman

KRISHNASAMY
College of Engineering & Technology

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Certificate

This is to certify that ~~Mr.~~ / Ms. NIVETHA .V (CSE - IV YEAR) of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled A COMPACT GESTURE RECOGNITION FOR VISUALLY CHALLENGED PEOPLE USING MACHINE LEARNING under Research / Project grant sponsored by the Arunai Charitable Trust during the academic year 2019- 2020.

Principal

Dr. K. Rajendran
Chairman

KRISHNASAMY
College of Engineering & Technology

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Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109.

Certificate

This is to certify that ~~Mr.~~ / Ms. REHANA . Y (CSE - IV YEAR) of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled A COMPACT GESTURE RECOGNITION FOR VISUALLY CHALLENGED PEOPLE USING MACHINE LEARNING. under Research / Project grant sponsored by the Arunai Charitable Trust during the academic year 2019- 2020.

Principal

Dr. K. Rajendran
Chairman

ARUNAI CHARITABLE TRUST

(Estd 1994)

#157/16,Siva Flatss,20th MainRoad,AnnanagarWest,Chennai -600 040

Research/Project Grant 2019-2020

UTILISATION CERTIFICATE

1 Name of the guide & Address : MS. S. AHIRTHA
Assistant Professor
Department of Electrical and Electronics Engineering

2 Name of the student(s) : A. Priya Darshini
R. Ramya

3 Title of the project : Women safety using IBEACON Technology.

4 Department/Institution Name & Address : Electrical and Electronics Engineering | Krishnasamy college of Engineering & Technology S. Kumarapuram cuddalore - 607 109

It is certified that a sum of Rs 5000 (five thousand only) sanctioned by the Trust for carrying out above mentioned project has been utilized for the purpose for which it was sanctioned.

Signature of the Guide

Signature of the HOD

Signature of the Principal

WOMEN SAFETY USING IBEACON TECHNOLOGY

A PROJECT REPORT

Submitted by

A. PRIYA DARSHINI 421316105016

R. RAMYA 421316105021

in partial fulfillment for the award of the degree

of

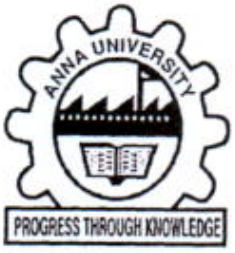
BACHELOR OF ENGINEERING

in

ELECTRICAL AND ELECTRONICS ENGINEERING

KRISHNASAMY COLLEGE OF ENGINEERING AND TECHNOLOGY

CUDDALORE-607 109



ANNA UNIVERSITY::CHENNAI 600 025

MAY 2020

ABSTRACT

According to the reports of WHO, NCRB-social-government organization 35%Women all over the world are facing a lot of unethical physical harassment in public places such as railway-bus stands, foot paths etc. This paper describes about an one touch alarm system for women's safety using IBEACON. In the light of recent outrage in Delhi which shook the nation and woke us to the safety issues for women, people are finding up in different ways to defend. Here we introduce a device which ensures the protection of women. This helps to identify protect and call on resources to help the one out of dangerous situations. Anytime you sense danger, all you had to do, is hold on the panic switch. The system resembles a normal wearable device which when activated, tracks the place of the women using bluetooth low energy and sends emergency messages using GSM (Global System for Mobile communication), to sos contacts and the police control room. The proposed work shows a flexible and interoperable combination of a device and application that will accessorize and empower the citizens and serve as a multifunctional device.

KRISHNASAMY
College of Engineering & Technology

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Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109.

Certificate

This is to certify that ~~Mr.~~ / Ms. PRIYADHARSHINI.A (EEE - IV YEAR) of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled WOMEN SAFETY USING IBEACON TECHNOLOGY under Research / Project grant sponsored by the Arunai Charitable Trust during the academic year 2019- 2020

Principal

Dr. K. Rajendran
Chairman

KRISHNASAMY
College of Engineering & Technology

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Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109.

Certificate

This is to certify that ~~Mr~~. / Ms. RAMYA . R (CEEE – IV YEAR) of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled WOMEN SAFETY USING IBEACON TECHNOLOGY. under Research / Project grant sponsored by the Arunai Charitable Trust during the academic year 2019- 2020

Principal

Dr. K. Rajendran
Chairman

ARUNAI CHARITABLE TRUST

(Estd 1994)

#157/16,Siva Flatss,20th MainRoad,AnnanagarWest,Chennai -600 040

h/Project Grant 2019-2020

UTILISATION CERTIFICATE

1 Name of the guide & Address : MS. E. VAIRAVI
Assistant professor
Department of civil Engineering

2 Name of the student(s) : Krishnaraj. R
Bramkumar. B
Sugumar. S

3 Title of the project : Study on partial replacement of coarse Aggregate by Rubber in concrete

4 Department/Institution Name & Address : Civil Engineering
Krishnasamy College of Engineering & Technology, S. kumarapuram,
Cuddalore - 607109

It is certified that a sum of Rs 5000 [Five thousand only] sanctioned by the Trust for carrying out above mentioned project has been utilized for the purpose for which it was sanctioned.

Signature of the Guide

Signature of the HOD

Signature of the Principal

STUDY ON PARTIAL REPLACEMENT OF COARSE AGGREGATE BY RUBBER IN CONCRETE

PROJECT REPORT

Submitted by

KRISHNARAJ.R	**421315103011**
PREM KUMAR.B	**421315103019**
SUGUMAR.S	**421315103028**

in partial fulfilment for the award of the degree

of

BACHELOR OF ENGINEERING

IN

CIVIL ENGINEERING

KRISHNASAMY COLLEGE OF ENGINEERING AND TECHNOLOGY

S.KUMARAPURAM, CUDDALORE-607 109

ANNA UNIVERSITY: CHENNAI 600 025

MARCH 2019

ABSTRACT

At present the disposal of waste tyres is becoming a major waste management problem in the world. It is estimated that 1.2 billion of waste tyre rubber produced globally per year. It is estimated that 11% of postconsumer tyres are exported and 27% are sent to landfill, stockpiled or dumped illegally and only 4 % is used for civil engineering projects. Hence efforts have been taken to identify the potential application of waste tyres in civil engineering projects. In this context, our present study aims to investigate the optimal use of waste tyre rubber as coarse aggregate in concrete composite. Cubes are casted of M25 grade by replacing 15% and 30% percent of waste tyre with coarse aggregate and compared with regular M25 grade concrete. Fresh and hardened concrete strength were identified

Keywords: Rubber, Compressive strength, Material Properties.

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College of Engineering & Technology

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Certificate

This is to certify that Mr. / ~~Ms.~~ KRISHNARAJ.R CCE - IV YEAR of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled STUDY ON PARTIAL REPLACEMENT OF COARSE AGGREGATE BY RUBBER IN CONCRETE.

under Research / Project grant sponsored by the Arunai Charitable Trust during the academic year 2019- 2020.

Principal

Dr. K. Rajendran
Chairman

KRISHNASAMY
College of Engineering & Technology

(Approved by AICTE & Affiliated to Anna University - Chennai)

Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109.

Certificate

This is to certify that Mr. / ~~Ms.~~ PREM KUMAR.B (CE - IV YEAR) of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled STUDY ON PARTIAL REPLACEMENT OF COARSE AGGREGATE BY RUBBER IN CONCRETE under Research / Project grant sponsored by the Arunai Charitable Trust during the academic year 2019- 2020

Principal

Dr. K. Rajendran
Chairman

KRISHNASAMY
College of Engineering & Technology

(Approved by AICTE & Affiliated to Anna University - Chennai)

Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109.

Certificate

This is to certify that Mr. / ~~Ms.~~ SUGUMAR. S (CCE - IV YEAR) of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled STUDY ON PARTIAL REPLACEMENT OF COARSE AGGREGATE BY RUBBER IN CONCRETE under Research / Project grant sponsored by the Arunai Charitable Trust during the academic year 2019- 2020

Principal

Dr. K. Rajendran
Chairman

KRISHNASAMY
COLLEGE OF ENGINEERING & TECHNOLOGY
(Approved by AICTE, New Delhi & Affiliated to Anna University)
Anand Nagar, Nellikuppam Main Road, S.Kumarapuram, Cuddalore - 607 109.
☎ (04142) 285 601 - 604 | info@kcet.in | www.kcet.in

Prof. Dr. G. ELANGO, M.E., Ph.D.,
Principal

Lr. No. KCET/2019-20/Trust/121 **Date :08.01.2020**

From
The Principal,
Krishnasamy College of Engineering and Technology,
S.Kumarapuram, Cuddalore-607109.

To
MAJESTIC BUILDERS,
5/12, Rajiv Gandhi Nagar,
Koothapakkam,
Cuddalore-2.

Respected Sir,

Sub. : Project Funding – Reg.

Ref. : MoU dated 21.04.2021

The research project has been identified under the MoU of your esteemed organisation based on the recommendations of the Head of the Department and the Principal for the following batches. Thank you for your support and funding.

Academic Year 2019-2020

Guide Name and Institution Address	Title of the Project	Students Name	Department of the Students	Amount (Rs)
Mrs.A.Rajaeswari Assistant professor Krishnasamy College of Engineering and Technology, Kumarapuram, Cuddalore-607109.	Study and experimental analysis pf hydrophobic concrete by using OLEIC ACID	Mohammed Arshath.M Santhosh.K Karthick .S.M	Civil Engineering	7500/-
Mrs.E.Shanthipriya Assistant professor Krishnasamy College of Engineering and Technology, Kumarapuram, Cuddalore-607109.	Treatment of sugarcane waste water using pseudomonas putida	Manibalan.K Madhumathi.S	Civil Engineering	7500/-

Yours Sincerely,

KRISHNASAMY COLLEGE OF ENGG. & TECH ★ CUDDALORE 607 109.

PRINCIPAL

PRINCIPAL
Krishnasamy College of Engineering & Technology
Kumarapuram.
Cuddalore

MAJESTIC BUILDERS
5/12, Rajiv Gandhi Nagar,Koothapakkam, Cuddalore-2.
Email: cuddaloremajesticbuilders@gmail.com

Date :23.01.2020

From
MAJESTIC BUILDERS,
5/12, Rajiv Gandhi Nagar,
Koothapakkam,
Cuddalore-2.

To
The Principal,
Krishnasamy College of Engineering and Technology,
S.Kumarapuram, Cuddalore-607109.

Respected Sir,

Sub. : Project Funding – Reg

Ref. : Lr. No. KCET / 2019-20/ Trust/121

We are pleased to inform you that we approve your proposal based on the letter cited above as it is a very nice thought and we feel it definitely need to be encouraged. We would grant you a sum of amount INR.-15000/-. We will support you throughout the execution of the idea.

The detailed report shall be forwarded to us and subsequent review discussions held by involving Engineers from Builders Association. It has been decided to sanction the funding as follows.

Academic Year 2019-2020

Guide Name and Institution Address	Title of the Project	Students Name	Department of the Students	Amount (Rs)
Mrs.A.Rajaeswari Assistant professor Krishnasamy College of Engineering and Technology, Kumarapuram, Cuddalore-607109.	Study and experimental analysis pf hydrophobic concrete by using OLEIC ACID	Mohammed Arshath.M Santhosh.K Karthick .S.M	Civil Engineering	7500/-
Mrs.E.Shanthipriya Assistant professor Krishnasamy College of Engineering and Technology, Kumarapuram, Cuddalore-607109.	Treatment of sugarcane waste water using pseudomonas putida	Manibalan.K Madhumathi.S	Civil Engineering	7500/-

With Regards

MAJESTIC BUILDERS
5/12, Rajiv Gandhi Nagar, Koothapakkam, Cuddalore-2.
Email: cuddaloremajesticbuilders@gmail.com

Research/Project Grant 2019-2020

UTILISATION CERTIFICATE

1 Name of the guide & Address : Mrs. A. Rajeswari
Assistant Professor.
Department of Civil Engineering

2 Name of the student(s) : Mohammed Arshath. M
Santhosh. K
Karthick. S M

3 Title of the project : Study and Experimental analysis of hydrophobic Concrete by using OLEIC ACID

4 Department/Institution Name & Address : Civil Engineering /
Krishnasamy College of engineering and Technology, S. Kumarapuram, cuddalore - 607109.

It is certified that a sum of Rs 7500 (Seven thousand five hundred only) sanctioned by the Trust for carrying out above mentioned project has been utilized for the purpose for which it was sanctioned.

A. Rajeswari
Signature of the Guide

Signature of the HOD

Signature of the Principal

STUDY AND EXPERIMENTAL ANALYSIS OF HYDROPHOBIC CONCRETE BY USING OLEIC ACID

A PROJECT REPORT

Submitted by

M.MOHAMMED ARSHATH - 421316103012

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In partial fulfilment for the award of the degree

of

BACHELOR OF ENGINEERING

IN

CIVIL ENGINEERING

KRISHNASAMY COLLEGE OF ENGINEERING AND TECHNOLOGY

S.KUMARAPURAM, CUDDALORE-607 109

ANNA UNIVERSITY: CHENNAI - 600 025

APRIL 2020

ABSTRACT

The water-repellent and anti-permeability properties of cement are crucial for the durability and safety of concrete structures. In this work, we prepared a hydrophobic concrete by using oleic acid. Fly ash was firstly reacted with oleic acid by the dry milling method, and the modified fly ash was used to prepare the hydrophobic concrete. Using the fly ash with oleic acid significantly decreased the water uptake and gas permeability of the prepared cement paste samples. Hydrophobic concrete is demonstrated by the capability of a surface to repel water and is characterized by contact angle. The contact angle of hydrophobic concrete is over 90° surface. Generally speaking, to fabricate a super-hydrophobic surface water contact angle,150°. The hydrophobic concrete was optimal when the content of the fly ash in the cement was 30% wt and after the cement was cured for 28 days. In this study the percentage of Oleic acid by weight of cement from 0%, 2%, 3% and 4% as the dosage of internal curing compound was fixed for M25 mixes.

Keywords: *Fly ash, Hydrophobic concrete, Oleic acid, Water repellent.*

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Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109.

Certificate

This is to certify that Mr. / Ms. M. Mohammed Arshath of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled "Study and Experimental Analysis of Hydrophobic Concrete by using OLEIC ACID" under Research / Project grant sponsored by the Majestic Builders during the academic year 2019- 2020

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Chairman

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This is to certify that Mr. / Ms. K. Santhosh of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled "Study and Experimental Analysis of Hydrophobic Concrete by using OLEIC ACID" under Research / Project grant sponsored by the Majestic Builders during the academic year 2019- 2020

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This is to certify that Mr. / Ms. S. M. Karthick of Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled "Study and Experimental Analysis of Hydrophobic Concrete by using OLEIC ACID" under Research / Project grant sponsored by the Majestic Builders during the academic year 2019- 2020

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MAJESTIC BUILDERS
5/12, Rajiv Gandhi Nagar, Koothapakkam, Cuddalore-2.
Email: cuddaloremajesticbuilders@gmail.com

Research/Project Grant 2019-2020

UTILISATION CERTIFICATE

1 Name of the guide & Address : Mrs. E. SIVANTHIPRIYA
Assistant professor
Department of Civil Engineering

2 Name of the student(s) : Manibalan. K
Madhumathi. S

3 Title of the project : Treatment of Sugarcane waste water using Pseudomonas putida.

4 Department/Institution Name & Address : Civil Engineering |
Krishnasamy College of Engineering and Technology, S. Kumarapuram, Cuddalore - 607 109.

It is certified that a sum of Rs 7500 (Seven thousand five hundred only) sanctioned by the Trust for carrying out above mentioned project has been utilized for the purpose for which it was sanctioned.

Signature of the Guide | Signature of the HOD | Signature of the Principal

TREATMENT OF SUGARCANE WASTE WATER USING PSEUDOMONAS PUTIDA

A PROJET REPORT

Submitted by

421316103009- MANIBALAN.K
421316103702- MADHUMATHI.S

in partial fulfilment for the award of the degree
of
BACHELOR OF ENGINEERING
IN
Civil ENGINEERING

KRISHNASAMY COLLEGE OF ENGINEERING AND TECHNOLOGY
S.KUMARAPURAM, CUDDALORE-607 109

ANNA UNIVERSITY: CHENNAI 600 025
SEPTEMBER 2020

ABSTRACT

Sugar industry is one of the industries that produce a high amount of pollutant since its wastewater contains high amount of organic material, inorganic substances, if this waste is discharged without an improper treatment into the watercourse, it can cause problem to aquatic life and environment. For the primary treatment process, sugar waste water can be treated by using micro-organism such as psedomonas putida. Treatment of wastewater with micro-organisms based system have the ability to remove nutrients (Nitrogen, Phosphorus),toxic substances (both organic and inorganic), BOD, COD and other impurities present in the wastewater by using the micro-organisms growth, which needs water food and O2 for growth .

Which helps in treating the wastewater by converting into ring water.

Keywords: micro-organism – pseudomonas putida, waste removal, wastewater treatments .

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This is to certify that Mr. / Ms. K. Maribalan of

Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled "Treatment of Sugarcane waste water using Pseudomonas putida"

under Research / Project grant sponsored by the Majestic Builders during the academic year 2019-2020

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This is to certify that Mr. / Ms. S. Madhumathi of

Krishnasamy College of Engineering and Technology, Cuddalore has successfully completed the project titled "Treatment of Sugarcane waste water using Pseudomonous Putida".

under Research / Project grant sponsored by the Majestic Builders during the academic year 2019- 2020

Principal

Elango

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DN: c=IN, o=Personal, title=3550, pseudonym=ffdef84faf2e4a8eafafb08e322dfe7b, 2.5.4.20=2a7905a4396f4300f736fdf2e8fc6af0c43725b5b0a690b75e181928358753 7e, postalCode=607302, st=Tamil Nadu, serialNumber=978aa0d864f1622fab512498c042793859e565c25a736e14d9211005 4bc0ee5d, cn=Elango
Date: 2024.07.22 16:49:21 +05'30'

Dr. K. Rajendran
Chairman