

MOTHER TERESA WOMEN'S UNIVERSITY KODAIKANAL



MTWU – ITCC

MOTHER TERESA WOMEN'S UNIVERSITY – INCUBATION AND TECHNOLOGY TRANSFER CENTRE

VISION

• To promote Innovation through Industry Collaboration

MISSION

- To encourage and develop innovative products through novel research ideas
- To identify Industry partners & invite them to use the facility
- To train the students for quality inventions
- To provide Infrastructure and Research facility
- To provide incubation and start-up services to budding entrepreneurs.
- To enhance Employment opportunities

The MTWU-ITTC has been funded by Government of Tamil Nadu in the year 2013 to help the Inventorsto come out as Entrepreneurs by providing guidance, mentorship and infrastructure support.

MTWU-ITCC focuses on the following areas for Innovation

- Computer Science
- Home Science
- Textile & Clothing
- Agriculture
- Environmental Sustainability
- Women Empowerment
- Chemical Science
- Biological Sciences
- Social Sciences
- Commerce & Management
- Media Science
- Library & Information Science
- Physical Science
- Life Science

Salient Features

- MTWU-ITTC encourages the students to develop innovative products, emerging out of theirnovel research ideas
- All the inventors are given infrastructural support such as workspace, internet etc.
- The MTWU-ITTC undertakes innovative problems that find solution to local needs (district andstate) as well as global needs.
- MTWU-ITTC facilitates the students to get internships through Industry Collaboration.



ARIIA Ranking

Atal Ranking of Institutions on Innovation Achievements (ARIIA) is an initiative of Ministry of Education (MoE), Govt. of India to systematically rank all major higher educational institutions and universities in India on indicators related to "Innovation and Entrepreneurship Development" amongst students and faculty Members. Based on the activities carried out by Mother Teresa Women's University, Kodaikanal on Innovation and Entrepreneurship Development, it has been positioned in the 8th place of the list of Band-Performing Institutions.



The Incubation and Technology Transfer Centre in Mother Teresa Women's University has trained the students and staff members of all departments in latest technologies in relevant Disciplines that will improve the job opportunities for the students. The centre has also proposed to start a Start-Up to develop packages (like Hotel Management System and Travels Management System) for the needy people in and around Kodaikanal, which is an International Tourist Spot where the Tourist Industry is flourished.

The Incubation and Technology Transfer Centre was sponsored by Tamil Nadu Government with the objective, to help create and grow young businesses by providing them with necessary support and financial and technical services. Faculty Development Programmes on technologies such as Cloud Computing, Network Simulator, etc. were conducted for the faculty members of University Departments and the intension of taking the technology to a wide range of students. A workshop on Apiculture was organised to University students of Biotechnology Department and the Kodaikanal public. Workshop on Computational Chemistry and Molecular Modelling: Fundamentals Theory and Practice for the students of Chemistry Department. Five days training programme on Hardware and Software Troubleshooting was given to both the faculty members and students of the University. A short term training programme for 12 days on 'TALLY' was given to M.C.A. and M.COM. students, which would help the students in starting consultancy services. International workshops on Cloud Computing, Cloud Infrastructure, Global Business Foundation Skills, Cyber Security, Video Analytics, Apiculture, etc. were given to students and the faculty members which would help the students in establishing start-ups on their own.

OUTCOMES

• As part of Innovation,

- Ms.P.Kalaivani, Ph.D. Scholar of Computer Science Department has been incubated in Department of Computer Science for six months in developing her project work titled 'Human Action Recognition'. She has come out with tools in recognising the type of Human Actions from a given Video. This software tool can be embedded as part of Image Sensors and can be maintained as Health Monitoring Tool.
- 2. Ms.Suganya Panikar, Ph.D. Scholar of Department of Biotechnology has come out with the proposal to extract essential oil from various biological species and this can be

commercialised. She is also trying to get patent for the same. She has been incubated in Department of Biotechnology for one year. Proof:

MOTHER TERESA WOMEN'S UNIVERSITY KODAIKANAL - 624 102 INUBATION AND TECHNOLOGY TRANSFER CENTRE **APPLICATION** : P.KALAIVANI NAME COMPUTER SCIENCE DEPARTMENT Ph.D (Computer Science) P.G. / PH.D. TITLE OF THE PROPOSAL Human Action Recognition Using Optical Flow Analysis Of Video with Static Background · To develop a system for Human Action Recognition (HAR) for Computer Vision OBJECTIVES : To make computers take decision on identifying the type of action from the Input Video. To apply the developed tool to monitor the Patients' Health by embedding the tool as part of the Image Sensors. DURATION OF THE PROPOSED WORK: 6 months WORK PLAN Preprocessing of Input Video – Removal of Noise
 Extracting Context – Sensitive Features from the Image Frames 3. Classification of images based on various actions with respect to the context. The proposed approach will give more accurate results for Human Action Recognition in higher level of the optical flow analysis comparing with Lucas Kanade function by reducing the noise of the image. The resulting toll can be embedded as part of image sensors to make powerful decision making by identifying the context based actions. Hal Signature of Candidate Ms. P. Kalcivani, Ph.D is a part time Ph.D. Scholm & Dept & CS. She has been permi to convert her research idear into stw too, to convert her research idear into she too, by making here of the expertise HEAD OF THE DEPARTMENT and failthe tress arrai lable in and failthe tress Arrow lable in and failthe tress MTW, Koclai Kanal

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I AND	MOTHER TERESA WOMEN'S LINIVERSITY
	KODAIKANAL - 624 102
INUB	ATION AND TECHNOLOGY TRANSFER CENTER
	APPLICATION
NAME	: SUGANYA PANIKAR
DEPARTMENT	BIOTECHNOLOGY
P.G. / PH.D.	: PH.D
TITLE OF THE PROPOS	AL PLANT BASED ROOM FRESHER WITH ANTI DERMATOPHYTIC AND WALL PROTECTIVE EFFECT.
OBJECTIVES:	
 Find the best form In Vitro analysis Apply for the pate Develop the busin 	ulation. nt ess plan
DURATION OF THE PR	OPOSED WORK : 1 year
WORK PLAN:	
 Extraction of esse Sampling, Cultive Assessment of de Preparation differ Antifungal activit Preparation of ros 	ntial oil from different spocies. tion and Identification of wall fungi matophytic fungal susceptibility towards essential oil. ent combination of essential oil for application on cement blocks. y on cement blocks on freshener best combination of essential oil
EXPECTED OUTPUT:	
 Antifungal perfu The room fresher scent IP filing for the p 	ne consisting of the combination of different essential oil. er is antifungal and antidermatophytic in nature and also with pleasant lemon roduct.
 Knowing about t 	echnology transfer and create business plan.
Recommendation by the	HOD on usage of facilities & Expertise
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progress. IP ,	childed ploy will be HEAD OF THE DEPARTMENT
taken sous by	through JP ull. Knolly
tota la te	while preparing bus new plan.

- Ms.Vasanthi, Ph.D. Scholar, Department of Women's Studies: Madras Market An online Recommendation System for SHG women for improvising the sales.
- A.Athisakthi, Ph.D. Scholar, Department of Computer Science: Automated Smart Class Room based on Fuzzy Based Wireless Communication technology.
- R.P.Architha, MCA: Gesture Controlled Device for Intellectually / Physically Challenged based on the MEMS (Micro Electro Mechanical System) Sensor with Machine Learning Techniques technology.

- 6. Ms.J.Michael Antony Sylvia, Ph.D. Scholar: **Smart Bin for Smart City** using the technology, Cloud Enabled IoT Technology.
- S.Rabecca, III MCA: Smart Women Safety Dress using the Technology using the technology 'Wireless Sensor Networks'.
- 8. B.N.Bobinath, Ph.D. Scholar: AI Based Bison Detection on Real Time Video Stream using the technology Image Analysis using Machine Learning Techniques.

• Development of Software Packages

- The MCA students, develop their software packages with the help of the Incubation Center and those packages are used by various business/service organisations. Two such works are
- 1. **Oldage Home Management System -** The purpose of the project is to develop the Computerized Service Register System. This is implemented to keep of all the details or information about the old age people, donors, expenses, and the staff details who are working in the home. The system has the provision of storing the details and retrieving them whenever necessary. It is developed with a user friendly platform to access the data easily as this is the improved systematic approach from the manual entries in huge notebooks.
- 2. Fertilizer Management System This project entitled "Fertilizer Management System" is the windows based application used for managing various processes carried out in the fertilizer shop. In this system, the Admin is the Super User who keeps track of all the activities managed in the fertilizer shop.

Outcomes

SOFTWARE PACKAGES DEVELOPED IN INCUBATION CENTREPACKAGE-1

OLD AGE HOME MANAGEMENT SYSTEM

- The purpose of the project is to develop the Computerized Service Register System. This is implemented to keep of all the details or information about the old age people, donors, expenses, and the staff details who are working in the home. The system has the provision of storing the details and retrieving them whenever necessary. It is developed with a user friendly platform to access the data easily as this is the improved systematic approach from the manual entries in huge notebooks.
- This project has been proposed to reduce manual work, improving work efficiency, saving time.



By

Ms.M.Jesima



MCA-III

Reg.No.: 184405ER008

MTWU, Kodaikanal.

MODULES

- Donation Details
 - Personal Details
 - Amount Details
 - Contact Details

• Old Age Person Details

- Personal Details
- Health Details

Expense Details

- Food Expenses
- Health Expenses
- Electricity Expenses
- Staff Salary

Staff Details

- Personal details
- Salary details
- Attendance details

ABOUT THE SOFTWARE

Front End Tool - PHP

- PHP is a scripting language generally used to make websites.
- PHP is mainly used for design server side applications.
- It is most popular and frequently used worldwide scripting language, It is open source and very simple.





Back End Tool - MYSQL

- It runs on different platforms such as Windows, Linux, Unix, etc. This language is very simple to learn and runs efficiently on the server side.
- It is compatible with almost all servers used today, such as Apache, IIS, etc.
- MySQL is a very powerful program so it can handle a large set of functionality of the most expensive and powerful database packages.

SCREENS GENERATED

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New Person	New Person mormation		
Master >		NEW PERSON	
Teisk >	Name	Vellaisharry	
Report ≥	Gender	* Male Female	
	Age	89	
Signout	Address	43, North Street,	
	City	Madurai	
	Occupation	NIL	
	Pension Details	NIL	
Copyright © OldAgeHome.com	Relative Name	NIL	
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BANYAN HOME

75 Siluvathur Road Opp. To Khadi Office Dindigul – 624 102

Mobile: 7598628346

7.6.2020

Mr.S.Vijaya Raghavan Banyan Home

Dindigul

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms.M.Jesima (Reg. No: 184405ER008) has developed a Web Application 'Old Age Home Management System' using PHP and MYSQL as part of her MCA curriculum. We are using the software in our day-to-day functioning of the home. It is working successfully. My best wishes for her best future.

(S.Vijaya Raghavan)

PACKAGE - 2

FERTILIZER MANAGEMENT SYSTEM

- This project entitled **"Fertilizer Management System"** is the windows based application used for managing various processes carried out in the fertilizer shop. In this system, the Admin is the Super User who keeps track of all the activities managed in the fertilizer shop.
- The main aim of the project is to manage the details of the fertilizers and pesticides stock through the system, sales of the stock etc., and provides security for the owner of the shop.
- The Admin is provided with Login ID and Password. After successful authentication, the processes like Company product maintenance, Creating Item and its category, Supplier Details, Purchase Details, Sales Details, Customer Details and their Payment Details, Current Stock values are handled in the application efficiently.

By

Ms.J.Sakthimatha, III MCA

Reg. No.: 184405ER016

- The proposed system is a computer based system, which has the following advantages:
 - The entire fertilizer shop processes will be managed easily.
 - Sales details are managed efficiently.
 - Product can be easily sold to the customer with billing details.
 - The fertilizer and pesticides sales and purchase details are easily manage.
- By providing the secured login, only the administrator may use it, so it may not suffer from the loss of details this system contain.
- Data retrieval is easy and accurate.
- Helps to reduce manpower.
- Modification can be made easily.

SCREENS GENERATED

FERTILIZER MANAGEMENT SYSTEM

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LOGIN PAGE

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mourt	opulate		2	Cristral	rogar 250ml	500	
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	Cor	npany Name	Raj	•			
	Рі	oduct Name	LARA 500ML	-			
		Item_Code	14	Curr	ent Stock 80		
		Rate	5000				
		Quantity	10		Add		
		Amount	50000				
Company Name	Product Name	Item_Code	e Rate	Quantity	Amount		
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PURCHASE VIEW

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Total Bill Amount : 13500 Generate Report

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GST NO: 33/LWPJ0823K2ZP TIN NO: 33756496501 T.A.A. Sadiq Ali Complex New Ayakkudi Palani Taluk Dindigul Dt. – 624 613 Phone: 9786992019

10.5.2020

TO WHOMSOEVER IT MAY CONCERN

We feel happy to say that Ms.J.Shakthi Matha (Reg.No.: 184405ER016) has developed a software package '*FERTILER MANAGEMENT SYSTEM*' for our fertilizer shop using the software tools VB .NET and MySQL. It helps us in generating reports that are helpful in effective functioning of our shop.

oth

(S.JOTHIMANI)

Details about the Training Programmes Conducted:

• 4.4.2016 to 12.4.2016 - Tally Short-Term Training Programme for MCA and M.Com. students.

The students who participated in this programme can become consultants in helping business organisations to come out with Balance Sheet, Profit and Loss Statement, etc.



No. of Attendees : 45 (M.Com. and MCA students)

MOTHER TERRASA UNIVERSITY,

WORKSHOP SCHEDULE (27.06.2016 to 30.06.2016)



• 27.06.2016 to 30.06.2016 - Workshop on ICT Skills

Date	Course Name	Trainer Name
		Mr.Thirukumaran
	Not & SOI	Software Developer
	.Net & SQL	Eminent Technology Solution,
27- June-16		Madurai
		Mr.Arun
	JAVA	Software Trainer
28-June-16		Kalvi Institute Pvt Ltd, Madurai
	Multimedia & Animation	Mr.Muthukumar
		Designing Engineer
29-June-16		Kalvi Institute Pvt Ltd, Madurai
		Mr.Bennet
	NLP & Softskills	Softskills Trainer
30-June-16		Voice Training and Research Madurai



• International Workshop on Cloud for Educational Institutions – 21.6.2018 & 22.6.2018



• No. of participants: 118

Resource Persons: Mr.Veerarajan and Mr.Raja from IBM, Singapore – Hands on Training was given to participants in how efficiently, the cloud resources can be used for the benefit of any Institution.





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• International Workshop on Big Data Mining – Potential Research Aspects on 27.8.2019 and 28.8.2019.





Topics Covered:

- Fracquing Tends in BigData Mining Dr.C. Annumatai
 Quality Recents in Computer Science Dr.C. Annumatai
 Image Venaulitation Dr.S. Scathili Komar
 Patare Mining: Approaches for Weardolt Sorrow Fracea Research Heathrane Dr. Sweeting Hematasha

Honsela Bar Registration Fee Details Touching (Tunkria) Sulf Mondoo 1000 PG / Rosenak Sulfalar 210 100 / Rosenak Sulfalar 100

Contact Persons Dr.S.X00010, Co-ordinator care dog. Pre Dr.S.X00010, Co-ordinator care dog. freubation & Technology Transfer Contre 1598628346, <u>vimalaharini@gmail.com</u>

Dr.M.P.Indra Gandhi, Jun Professor (56) 9442094960 mpyazhiniji:guail.com

Dr.X. Sebil, dark Production

0442648983, selvigiri.s@gmail.com

Mode of Payment : (2000 in forman) THE RECONTRACT Mother Teresa Women's University, Sadaikanal, Society of KOLMEANAE production SB0

On-the-Spot Registration is also possible (Participation may bindly be informed over ghoog in advance) For further information, contact 7598628344, 9443024290,2442648283

ORGANIZING COMMITTEE Chief Patron

Dr. Vaidebi Vijayakumar Han Jie, Fice Chancellor. Mother Terena Bomen's Chiversity. Socialismul.

Patron Dr. A. Suganthi.

Registrar: Mother Teresa Comen's University Constants Chair Dr.M.Pushparani

UTAL PURPARENT. UCAN DESCRIPTION Department of Computer Sciences Mother Versus Vener's University, Mada Convenor Department of Computer Science Mother Versus O oneon's University. Social

Co-Convenors Dr. M.P.Jolas Cardhi, Ant. Protone (STD Dr.V.Scho, Kolean Protone

Members Dr. D. Baldas des Conserv De Kassille des Contrace Mis Schlegend, Technical Animae (Ni) Mis Schlegend, Technical Animae

- Resisterce Persons 1. Bothol-Gorpowold, Link: Evennen, Desi, of Alfernation Systems Data, L.A.E. 2. Do-Societo, Kanar Associate Mintere, Dirk, of Information Suppose and Technology, College of Diametrize, Guode 3. Oct-Societa Information (Societa Association) Associate Informer (Sci., Scient of CER, VIT, Chemis



Conference Hall Mother Teress Women's University, Altersongetty, Kodniksnal-624 101

About the University This is unique department where students get the opportunity to learn the computer languages and on **Registration Form** Name public speaking too About the Workshop Big data mining is referred to as the collective data Hig data mining is referred to as the collective data mining or estruction techniques that are performed on large sets /volume of data or the big data. Hig data mining is primarily done to extract and retrieve desired information or pattern from huge quantity of data, Typically. Big Data Mining works on data searching, refinement extraction and comparison algorithms. Big Data Mining also requires support from anderlying computing devices, specifically their processors and memory, for performing operations / queries on large around of data. TIL 0 00000 Designation Institution Mother Teresa Women's University Mother Teresa Women's University is simuled at "Princess of hills", <u>Kodulinual</u>. This Unique University is committed to the development of Women belonging to all strata of society via education and caters exclusively to women. The University has 18 departments offering PG and Address of data Big Data Mining techniques and processes are also used for Big Data Analytics and Hasiness Intelligence to deliver suggrapping, largeted and relevant information, patterns, and/or relationships between data, systems, processes and more. University has 18 departments offering PG and Research Programmes in various disciplines. Atta-diande of 2.144 meters (7000ff) above sea level and only kin degrees north of equator, <u>Kodulungi</u> holds a good web of road manoportation to all important crites. It has its nearest airport at Madurai (120 kgog). Its major focus is on Teaching, Research & Montoring, and Consultancy Services towards providing equal status for women in Pin Code: Objectives This workshop will be the place to discuss leading edge big data and machine learning applications, and to better understand the E-Mnil: About the Department future potential research aspects and the impact of these technologies on our industry. The Department of Computer Science is one of the Mobile: The trepartment of computer science is one of the vivacious departments in the University, established in the year 1987. The Computer Science department goes beyond the syllabis and executes with a laser focus on making every student as on all-round personality on every Science of Today is the Technology of Tomorrow* by: Edward Teller Date Signature: 03 80 perspective of life. Day-2:28.08.2019 MOTHER TERESA WOMEN'S UNIVERSITY 9:00 to 10:00 Registration Ō 10:00 to 11:30 Inauguration (A State University of Government of Tamilnadu) KODAIKANAL - 624 101 11:30 to 11:45 Tea Break

Department of Computer Science 11:45 to 1:30 Session-1: Pattern Mining Approaches for Wearable Sensor based Remote Healthcare By Dr. C. Sweetlin Hemalatha Welcomes you for the Two-days International Workshop on BIG DATA MINING – POTENTIAL RESEARCH ASPECTS School of Computer Science and Engineering 1:30 to 2:30 Lunch Break (27" and 28" of August, 2019) 2:30 to 3:30 Emerging Trends in Big Data Mining Dr.C.Annamalai, UMS University, Dept. of Information Systems, Dubai, U.A.E. Sponsored by Incubation and Technology Transfer Centre Mother Teresa Women's University, Kodaikanal Dr. M. Pushparani or and Head, Department of Computer Science Mother Teresa Women's University Welcome Address 3:30 to 3:45 Tea Break Professor 3:45 to 4:45 Continuation of Session-2 : End of First Day Dr. Vaidehi Vijayakumar Day-2:28.08.2019 Hon'ble Vice-chancellor, Mother Teresa Women's University Dr. A. Suganthi 9:30 to 11:15 Session-3 : Registrar, Mother Teresa Women's University Inaugural Address Quality Research in Computer Science Dr.C.Annamalal, UMS University, Dept. of Information Systems, Dubai, U.A.E. Dr C Annamalai UMS University, Dept. of Information Systems Dubai, U.A.E. 11:15 to 11:30 Tea Break 11:30 to 1:00 Continuation of Session-3. Dr. C. Sweetlin Hemalatha Ass. Professor, School of Computer Science Engineering Vellore Institute of Technology (VIT), Chennal Keynote Address 1:00 to 2:00 Lunch Break 2:00 to 3:30 Session - 4: Session - 4 : Image Visualization - Dr.S.Sendhil Kumar Department of Information Science & Technology, College of Engineering, Guindy. Dr. S. Vimala te Professor of Computer Science & Convenor Mother Teresa Women's University Vote of Thanks Associate Profes 3:30 to 3:45 Tea Break 3:45 p.m. Valedictory Conference Hall Mother Teresa Women's University Attuvampatty Campus, Kodaikanal - End of the Second Day -----

Resource Persons:

1. Prof.C.Annamalai, UMS University, Dept. of Information Systems, Dubai, U.A.E.

- Dr.C.Sweetlin Hemelatha, Asst. Professor (SG), School of CSE, Vellore Institute of Technology, Chennai
- Dr.S.Senthil Kumar, Associate Professor, Dept. of Information Science and Technology, College of Engineering, Guindy, Chennai.
- 4. No. of Participants: 256
- Five Days National Workshop on "Gene Transfer Technology in Plant Cells" by Department of Biotechnology from 3.9.2019 to 7.9.2019.

Resource Persons:

- 1. Dr.T.Swapna, Professor, Dept. of Botany, University of Kerala
- 2. Dr.M.Arun, Assistant Professor, Dept. of Biotechnology, Bharathiar University
- 3. Mr.P.Pearlson Samuel, Karur
- National Workshop on "Information Security" on 3.10.2019 & 4.10.2019 by Department of Computer Science.

Resource Person: Dr.Sibi Chakravarthy, VIT, Andhra Pradesh



International workshop on "Image Processing Using MATLAB" 6th & 7th October 2016

Two days International Workshop on Image Processing using MATLAB was held at the Department of Computer Science, Mother Teresa Women's University, Kodaiknal on 6th & 7th October 2016. Dr.M.Pushpa Rani, Professor and Head in this Department of Computer Science gave the thematic Introduction and welcomed the Chief Guest and the dignitaries on the dias. The workshop was inaugurated by Dr.Valli, Vice Chancellor, Mother Teresa Women's University, in her presidential address, she highlighted the importance of Image Processing and how to transfer the images using the tools, Mr.R.R.Suresh SAP HR Solution Architect for Madhvani Groups, Jinja, East Africa was the Chief Guest for the Inaugural Function. In his Chief Guest address, he enlighten the concepts of Image Processing and its usage. The inaugural function of workshop came to an end after Dr.M.Indragandhi proposed the Vote of thanks on this occasion. Mr.Kavin Kumar delivered the keynote address of the workshop. Totally, 77 participants from various colleges and institution were actively participated in this two days international workshop.



ORGANIZING COMMITTEE

Chief Patron Dr. G. Valli, Hon'ble Vice Chancellor, Mother Teresa Women's University, Kodaikanal

Patron Dr. N.Geetha, Registrar i/c, other Teresa Women's University. Kodaikanal.

Convener Dr. M.Pusparani Professor and Head Department of Computer Science Mother Teresa Women's University.

Organizing Secretaries Dr. S.Vimala Associate Professor Department of Computer Science Mother Teresa Women's University. Dr. M.P.Indra Gandhi Assistant Professor, Department of Computer Science, Mother Teresa Women's University Dr. V.Selvi Assistant Professor Department of Computer Science, Mother Teresa Women's University

Commitee Members Dr. D.Usha Assistant Professor, Department of Computer Science, Mother Teresa Women's University

Dr.K.Kavitha Assistant Professor, Department of Computer Science, Mother Teresa Women's University REGISTRATION FEE DETAILS 1. UG Students Rs 200

2. PG Students Rs 250 3. M.Phil/Ph.D Research scholar Rs 400

4. Acadamic and Industry faculty Rs 500

Address for communication

Dr. M.P.Indra Gandhi Assistant Professor. Department of Computer Science, Mother Teresa Women's University Dr. V.Selvi Assistant Professor. Department of Computer Science, Mother Teresa Women's University Mail-id:selvigiri.s@gmail.com 9865131592

Two Days International Workshop on

Image Processing using MATLAB 6.10.2016 & 7.10.2016



Organized by Department of Computer Science Mother Teresa Women's University



Venue **Conference Hall** Mother Teresa Women's University, Attuvampatty, Kodaikanal-624 101

About the University

Teresa Mother Women's University is situated at "Princess of hills", Kodaikanal. This Unique University is committed to the development of Women belonging to all strata of society via education and caters exclusively to women. The University has 18 departments offering PG and Research Programmes in various disciplines. At an altitude of 2,144 meters (7000ft) above sea level and only ten degrees north of equator, Kodaikanal holds a good web of road transportation to all important cities. It has its nearest airport an important cities, it has its nearest arport at Madurai (120 kms). Its major focus is on teaching, research and monitoring and consultancy services towards providing equal status for women in society. About the Department

The Department of computer science is one of the vivacious department in the university, established in the year 1987. The computer science department goes beyond the syllabus and executes with a laser focus on making every student as on all-round personality on every perspective of life. This is unique department where students get the opportunity to learn the computer languages and on public speaking too. About the seminar

MATLAB workshop mainly focuses on the student eager to learn about Matrix

Laboratory which is a high-level language and interactive environment for numerical computation. visualization. and programming. Using MATLAB, a student can analyze data, develop algorithms, and create models and applications. The language, tools and built-in math functions provide to explore multiple approaches and reaches to solution faster than with spreadsheets or traditional programming languages. MATLAB can be used for a range of applications including signal processing and communications, Medical imaging, image and video processing, control systems, test and measurement, computational finance, and computational biology.

Resource persons Mr. RR.Suresh, MCA. MBA.

Working SAP HR Solution Architect for Madhvani Groups, Jinia, East Africa

Mr.Kavin Kumar Assistant Professor. Kongu Engineering College, Perunthurai, Erode

Topics Day-I:6.10.2016 Session-I Introduction to ERP SAP R3 and its Programming Language ABAP/4

Day-I -Session-II

6-10-16 - Introduction to MATLAB and basic operations using MATLAB

Dav-II- 6.9.2016 Session-I 7-10-2016 (FN)-Image processing using MATLAB

Day-II- 1-10-2016 Session-II 7-9-2016(AN)- Scope for Research in Image processing

Registration Form

Designation:	
Institution:	
Address:	
PIN	
PIN	
PIN Email: Mobile:	
Email:PIN Mobile: Place:	
Email:PIN Mobile: Place: Date:	

MOI (Nation	THER TERESA WOMEN'S UNIVERSI nally Reaccredited with "B" Grade by N Kodaikanal - 624 101
	We cordially invites you for the
	Two Days International Workshop
	on
	Image Processing using MATLAB 6.10.2016 & 7.10.2016 Organized By
	DEPARTMENT OF COMPUTER SCIENCE MOTHER TERESA WOMEN'S UNIVERSITY KODIAKANAL
	PROGRAMME SCHEDULE
Date: 6-10-2016	
Inauguration - 10:00 an	1
Welcome Address	: Dr. M.Pusparani Associate Professor, Department Computer Science, Mother Teresa Women's University, Kodaikanal.

residential Address	:	Dr. G.Valli, Hon'ble Vice Chancellor, Mother Teresa Women's University, Kodaikanal.
naugural Address	:	Dr. N.Geetha Registrar i/c Mother Teresa Women's University, Kodaikanal.
11.30 am to 11.45 am	:	Tea
11.45 am to 1.00 pm	:	 Session-I (Introduction to ERP SAP R3 and its Programming Language ABAP/4) RR.Suresh, MCA., MBA., Working SAP HR Solution Architect for Madhvani Groups, Jinja East Africa
1.0 am to 2.00 pm	:	Lunch

National workshop on "Information Security" •

3rd & 4th October 2019

Two days National Workshop on Information Security was held at department of Computer Science, Mother Teresa Women's University Research & extension centre, Madurai on 3rd & 4th October 2019. Dr.M.Pushpa Rani, Professor & Head in the Department of Computer Science gave a thematic introduction and welcomed the Chief guest & the Dignitaries on the dias. The workshop was inaugurated by Dr.Vaidehi Vijayakumar Vice Chancellor, Mother Teresa Women's University. In her presidential address, she highlighted the importance of Data Security and elaborately elucidates how to transfer the

IVERSITY de by NAAC) information securely between node. Dr.S.Sibi Chakkaravarthi, Associate Professor, VIT, Andhra Pradesh was the Chief Guest for the Inaugural function. In his Chief Guest address, he enlighten the concept of malware attack and preventive measures. The inaugural function of workshop came to an end after Dr.M.P.Indra Gandhi, Assistant Professor (SG) proposed vote of thanks on this occasion. Dr.Vaidehi Vijayakumar, Vice Chancellor, Mother Teresa Women's university, Dr.S.Sibi Chakkaravarthi, Associate Professor, VIT, Andhra Pradesh and Dr.D.Sangeetha, Assistant Professor, MIT, Anna University, Chennai delivered the keynote address of the workshop. Nearly 200 Participants from various Colleges & Institutions were actively participated in this workshop.



Registration Fee Details

Faculty/Industry persons : Rs 500 PG / Research Scholar : Rs 350 Students : Rs 150

Contact Persons

Dr. M.P.Indra Gandhi, Asst. Professor (SG) Dept. of Computer Science 9442094960 / mpyazhini@gmail.com

Dr.S.Vimala, Asso.Professor,Dept. of Computer Science & Coordinator,Incubation & Technology Transfer Centre 9444690081 / vimalaharini@gmail.com

> Dr. V Selvi, Asst Professor Dept. of Computer Science 9442648983, selvigiri.s@gmail.com

Mode of Payment DD – in favour of THE REGISTRAR, Mother Teresa Women's University, Kodaikanal payable at KODAIKANAL (preferably SBI)

On the Spot Registration is also possible (Participation may kindly inform over phone in advance)

> For further information, contact 9442094960, 9444690081, 9442648983 indragandhisridharan@gmail.com

ORGANIZING COMMITTEE

Dr.Vaidehi Vijayakumar Hon'ble Vice Chancellor, Mother Teresa Women's University, Kodaikanal. Patron Dr. A.Suganthi, Registrar, Mother Teresa Women's University, Kodaikanal.

> Program Chair Dr. M. Pushpa Rani

Professor and Head Dept. of Computer Science Mother Teresa Women's University, Madurai

Convener Dr. M.P.Indra Gandhi, Ast. Professor (SG) Department of Computer Science Mother Teresa Women's University, Kodaikanal

Organizing Secretaries Dr.S.Vimala, Asso.Professor & Head i/c Dr.V.Selvi, Assistant Professor

Organizing Members Dr. D.Usha, Asst.Professor Dr. K.Kavitha, Asst.Professor Mrs. S.Kaliammal, Technical Assistant (SG) Mrs. V.Kalaiselvi, Technical Assistant

Science of Today is the Technology of Tomorrow by **Edwerd Teller**

Mother Teresa Women's University Kodaikanal - 624 102

Two Days National Workshop On

Information Security 3.10.2019 & 4.10.2019



Organized by

Incubation & Technology Transfer Centre and Department of Computer Science

Venue Mother Teresa Women's University Research and Extension Centre, Keelakuilkudi, Madurai.



About the University

Mother Teresa Women's University is situated at "Princess of hills", Kodaikanal. This Unique University is committed to the development of Women belonging to all strata of society via education and caters exclusively to women. The University has 18 departments offering PG and Research Programmes in various disciplines. At an altitude of 2,144 meters (7000ft) above sea level and only ten degrees north of equator, Kodaikanal holds a good web of road transportation to all important cities. It has its nearest airport at Madurai (120 kms). Its major focus is on Teaching, Research & Monitoring, and Consultancy Services towards providing equal status for women in society.

About the Department

The Department of Computer Science is one of the vivacious departments in the University, established in the year 1987. The Computer Science department goes ond the syllabus and executes with a laser focus on every student as on all-round personality on every ctive of life.

bout the Workshop

The Information Security Workshop is covering research in theory and applications to attract high quality in all technical aspects of information security. This workshop includes industry, government on traditional as well as emerging topics and new paradigms in these areas, with a clear connection to real-world problems, systems, or applications. Objectives

This Workshop is intended to provide an opportunity to faculty members, research scholars, industrial participants & Students to enrich their practical knowledge in the field of information ecurity. Topics to be Covered

Security in Sensor Network

- Security and Privacy in Health Care System
- Malware Analysis
- Exploiting Wireless Vulnerabilities
- Designing our own Security Operations

Resource Persons

- 1. Dr.Vaidehi Vijavakumar, Hon'ble Vice-Chancellor, MTWU
- 2. Dr.S.Sibi Chakkaravarthi, Associate Professor,VIT-Andhra Pradesh
- 3. Dr.D.Sangeetha, Assistant Professor, MIT, Chennai.

Mother Teresa Women's University Kodaikanal - 624 102

Two days National Workshop Information Security

3.10.2019 J. 4.10.2019

Registration Form

Name :	
Designation :	
Institution :	
Address :	
Pin Code :	
E-Mail :	
Mobile :	
Date :	
	Signature

	<u>Selene</u>		
an		ſ	Program Schedule
	Day-1 : 03.10.2	019	
	9:00 to 10:00	Registration	
	10:00 to 11:30	Inauguration	
	11:30 to 11:45	Tea Break	
	11:45 to 1:30	Session : 1	Security in Sensor Network Hon'ble Vice-Chancellor, Dr.Vaidehi Vijayakumar, MTWU
	1:30 to 2:30	Lunch Break	
	2:30 to 4.30	Session : 2	Security and Privacy in Health Care System Dr.D.Sangeetha, MIT Anna University, Chennai
	4:30 to 4:45	Tea Break	Anna Oniversity, onemai
		End of	First Day
	Day-2 : 04.10.2	019	
	10:00 to 11:30	Session : 3	Malware Analysis(Practical) -
			Dr.S.Sibi Chakkaravarthi, VIT Andhra Pradash
	11:30 to 11:45	Tea Break	VII, Allullia Flauesii
	11:45 to 1:30	Session : 4	Exploiting Wireless Vulnerabilities (Demo) -
			Dr.S.Sibi Chakkaravarthi,
	1:30 to 2:30	Lunch Break	VII, Andria Pradesn
	2:30 to 3.45	Session : 5	Designing our own Security Operations
			Dr.S.Sibi Chakkaravarthi, VIT. Andhra Pradesh
	3:45 to 4:00	Tea Break	VII, Allunia Fraucon.
4	4:00	Valedictory	
5		-	End of the Count Day
		Iton	- End of the Second Day
		DI TO DI TO	



(A State University of Government of Tamilnadu) KODAIKANAL – 624 101



DEPARTMENT OF COMPUTER SCIENCE

Welcomes you for the Two days National Workshop on

Information Security

(3rd and 4th October, 2019)

Sponsored by Incubation and Technology Transfer Centre Mother Teresa Women's University, Kodaikanal

Dr.M.Pushpa Rani

Professor and Head, Department of Computer Science & Program Chair Mother Teresa Women's University Welcome Address

Dr.Vaidehi Vijayakumar

Hon'ble Vice-Chancellor, Mother Teresa Women's University Presidential Address

Dr.A.Suganthi

Registrar, Mother Teresa Women's University Inaugural Address

Dr.S.Paulmary Deborrah

COE, Mother Teresa Women's University Felicitation Address

Dr.S.Sibi Chakkaravarthi

Associate Professor, Vellore Institute of Technology, Andhra Pradesh Keynote Address

Dr.D.Sangeetha

Assistant Professor, MIT, Anna University, Chennai Keynote Address

Dr.M.P.Indra Gandhi

Assistant Professor(SG), Department of Computer Science Mother Teresa Women's University Vote of Thanks

Venue : Mother Teresa Women's University, Research and Extension Center, Keelakuilkudi, Madurai.

- Two Days Hands on Training Programme on Video Analytics 6.9.2019 and 7.9.2019 by Department of Computer Science.
 - No. of Beneficiaries: 80.



- No. of Particpants: 70
- \circ Date: 6th and 7th of September, 2019
- Resource Person: Dr.V.Mohan Raj, Data Scientist, Renault-Nissan Technology and Business Centre India Pvt. Ltd.



• Organised a Two-Days Workshop on '*Code Yourself with Python*' on 13.8.2019 and 14.8.2019.



- Participants: 29 MCA students and 6 M.Phil. Students.
- Resource Persons: Dr.Murali, Head of the Department
 - 0
- International Seminar on Big Data Analytics and Applications 25.11.2019





Two days National Workshop on Computational Chemistry and Molecular Modelling: Fundamentals Theory and Practice, Mother Teresa women"s University Kodaikanal.

A two days National Workshop on Computational Chemistry and Molecular Modelling: Fundamentals Theory and Practice, was held during 21st and 22nd of February 2020, at Mother Teresa Women's University Kodaikanal. The workshop was organized by the Department of Chemistry and Incubation and

Technology Transfer centre of the University, under the support and guidance of the Vice chancellor Dr. Vaidehi Vijayakumar and Registrar Dr. A. Suganthi.

Dr. P. Venuvanalingam from Bharathidasan University, Dr. Mahesh Sundarajan from Bhabha Atomic Research centre, Mumbai and Dr. V. Rajakannan of the University of Madras, delivered special lectures and gave hands-on training to the students on various aspects of quantum chemical calculations and Moleciular docking

About 100 participants including faculty research scholars and PG students of various colleges and Universities participated. Dr. S. Jose Kavitha and Dr. Madhukar Hemamalini have organized the workshop.





• National Seminar on CyberSecurity – 9.1.2020.

The Department of Computer Science organised a National Seminar on Cybersecurity on 9.1.2020 with the intention of creating awareness about cybercrimes and how the women can protect themselves from cybercrimes. A total number of 105 participants attended programme from all PG Departments and Affiliated colleges. Dr.SibiChakravarthy, working as Associate Professor in Vellore Institute of Technology, Andrapradesh had been the resource person for the Seminar.



Certificate Copy:

	MOTHER TERESA WOMEN'S UNIVERSITY, KODAIKANAL - 624101
AT MARY IN	DEPARTMENT OF COMPUTER SCIENCE
	One Day National Seminar on
and a second	Cyber Security (for Common Man)
	CERTIFICATE OF PARTICIPATION
This is to ce	tify that Dr./Mr./Ms
	participated in
the One Day Natio	nal Seminar on "Cyber Security", organized by Department of Computer Science, Mother Teresa
Women's Universi	ty, <u>Kodaikanal</u> on 9 th January 2020.
Convener	Dean Science Activ

• No. of Participants: 105


Mother Teresa Women"s University, Kodaikanal

Department of Computer Science National seminar on



Cyber Security (for Common Man)

(9.01.2020)

Feedback Form

Name of the Institution	:			
Name and Dept. of the Participant	:			
1. Hospitality	:	Excellent /	Very Good /	Good
2. Technical Session	:	Excellent /	Very Good /	Good
3. Organization	:	Excellent /	Very Good /	Good
Suggestions, if any!				

Overall Rating (Put tick in relevant box)

9-10	7-8	5-6	3-4	1-2
> 10	70	20	01	



MOTHER TERESA WOMEN'S UNIVERSITY KODAIKANAL – 624 102 INCUBATION AND TECHNOLOGY TRANSFER CENTRE



3.8.2016

Dr.S.Vimala Coordinator

CIRCULAR

This is to inform that the Incubation and Technology Transfer centre of Mother Teresa Women's University has convened a meeting on 8.8.2016 to discuss about the avenues in terms of funding sources and business plans for initiating Start-Ups. Interested students (both PG and Ph.D.), from all departments can come forward to participate in the meeting with innovative project proposals to get benefited out of this.

3/9 2016 (S.VIMALA)

Hue Vants mune - 1 conto biam Struk

5.8.2016

From

A.Athisakthi (PHD2014CSF253) Ph.D. Scholar Department of Computer Science Mother Teresa Women's University Research & Extension Centre Madurai

Through

- 1. The Head Department of Computer Science Mother Teresa Women's University Research and Extension Centre Madurai
- 2. The Research Dean Mother Teresa Women's University Kodaikanal

To The Coordinator Incubation and Technology Transfer Centre Mother Teresa Women's University Kodaikanal

Respected Madam,

With reference to your circular dated 3.8.2016, I would like to develop a software product titled 'Automated Smart Class Room'. This will be helpful for energy conservation and to avoid misuse by other people. In this regard, I herewith submit a proposal for the same. I therefore request you to kindly provide me infrastructure, software, hardware facility and staff's expertise for a period of four months to complete the product on verifying the proposal.

1 - King

Thank you.

Yours sincerely

Athisakthi

AUTOMATED SMART CLASS ROOM

A.Athishakthi

Ph.D. Scholar – Reg. No.: PHD2014CSF253 Department of Computer Science Mother Teresa Women's University Research & Extension Centre

Technology Used: Fuzzy Based Wireless Communication

Abstract: Automated Smart Classroom System uses fuzzy based wireless communication to control the functioning of the classroom appliances. Prior to switching on the appliances, the system ensures that the door is opened through a metal proximity sensor and a passcode. The various appliances like tube lights, fans and the computer can be controlled through voice commands. This system will not only reduce the power wastage but also can avoid the misuse by unauthorized persons. Also it can be easily implemented in any existing classroom.

Indya &



MOTHER TERESA WOMEN'S UNIVERSITY KODAIKANAL - 624 102 INCUBATION AND TECHNOLOGY TRANSFER CENTRE



Members Present

- 1 Research Dean Mother Teresa Women's University
- 2. Dean, Science Mother Teresa Women's University
- 3. Head Department of Computer Science
- 4. Coordinator Incubation and Technology Transfer Centre

Signature 1. Kinde & Sudyout

The committee recommends that Ms A Athisakthi's proposal has been selected and she may be permitted by the Coordinator, Incubation and Technology Transfer Centre of Mother Teresa Women's University to make use of the Infrastructure and other facilities in the University campus to carry out her development work.

T. Kande

2. Jul 2016

3. Subjack



MOTHER TERESA WOMEN'S UNIVERSITY

KODAIKANAL – 624 102



INCUBATION AND TECHNOLOGY TRANSFER CENTRE

22.8.2016

Dr.S.Vimala Coordinator

To The Head Department of Computer Science Mother Teresa Women's University Research & Extension Centre Madurai

Respected Madam,

This is to bring to your kind notice, that the project proposal submitted by Ms.A.Athisakthi (PHD2014CSF253), Ph.D. Scholar has been scrutinized and selected for carrying out the work in the Department of Computer Science, Mother Teresa Women's University Research and Extension Centre, Madurai by using the facilities available for a period of five months from Jan., 2017 to June.' 2017. We wish her all Success!!

Thank you.

(S.VIMALA) 22/8 2014

DEPARTMENT OF COMPUTER SCIENCE

MOTHER TERESA WOMEN'S UNIVERSITY - KODAIKANAL

ATTENDANCE

Name: A.Athisakthi

.

Register Number: PHD2014CSF253 Class: III MCA

Jan'2017	Att.	Feb'2017	Att.	Mar'2017	A ++	An=12017	A 44	Lun 12017	A ++
01-01-2017	Sun	01-02-2017	A	01-03-2017	D D	Apr 2017	Att.	Jun 2017	D
02-01-2017	Р	02-02-2017	P	02-03-2017	D	02-04-2017	Sun	02-06-2017	p
03-01-2017	Р	03-02-2017	P	03-03-2017	P	03-04-2017	P	03-06-2017	Sat
04-01-2017	Р	04-02-2017	Sat	04-03-2017	Sat	04-04-2017	P	04-06-2017	Sun
05-01-2017	Р	05-02-2017	Sun	05-03-2017	Sun	05-04-2017	P	05-06-2017	Р
06-01-2017	Р	06-02-2017	P	06-03-2017	P	06-04-2017	Р	06-06-2017	Р
07-01-2017	Sat	07-02-2017	Р	07-03-2017	Р	07-04-2017	Р	07-06-2017	Р
08-01-2017	Sun	08-02-2017	Р	08-03-2017	Р	08-04-2017	Sat	08-06-2017	Р
09-01-2017	Р	09-02-2017	Р	09-03-2017	Р	09-04-2017	Sun	09-06-2017	Р
10-01-2017	Р	10-02-2017	Р	10-03-2017	Р	10-04-2017	Р	10-06-2017	Sat
11-01-2017	Р	11-02-2017	Sat	11-03-2017	Sat	11-04-2017	Р	11-06-2017	Sun
12-01-2017	Р	12-02-2017	Sun	12-03-2017	Sun	12-04-2017	Р	12-06-2017	Р
13-01-2017	Н	13-02-2017	Р	13-03-2017	Р	13-04-2017	Р	13-06-2017	Р
14-01-2017	Sat	14-02-2017	Р	14-03-2017	Р	14-04-2017	Р	14-06-2017	P
15-01-2017	Sun	15-02-2017	Р	15-03-2017	Р	15-04-2017	Sat	15-06-2017	Р
16-01-2017	Р	16-02-2017	Р	16-03-2017	Р	16-04-2017	Sun	16-06-2017	Р
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18-01-2017	Р	18-02-2017	Sat	18-03-2017	Sat	18-04-2017	Р	18-06-2017	Sun
19-01-2017	Р	19-02-2017	Sun	19-03-2017	Sun	19-04-2017	Р	19-06-2017	Р
20-01-2017	A	20-02-2017	Р	20-03-2017	Р	20-04-2017	A	20-06-2017	Р
21-01-2017	Sat	21-02-2017	Р	21-03-2017	Р	21-04-2017	Р	21-06-2017	A
22-01-2017	Sun	22-02-2017	Р	22-03-2017	Р	22-04-2017	Sat	22-06-2017	Р
23-01-2017	Р	23-02-2017	Р	23-03-2017	Р	23-04-2017	Sun	23-06-2017	Р
24-01-2017	Р	24-02-2017	Α	24-03-2017	Р	24-04-2017	Р	24-06-2017	Sat
25-01-2017	Р	25-02-2017	Sat	25-03-2017	Sat	25-04-2017	Р	25-06-2017	Sun
26-01-2017	Р	26-02-2017	Sun	26-03-2017	Sun	26-04-2017	Р	26-06-2017	A
27-01-2017	A	27-02-2017	Р	27-03-2017	Р	27-04-2017	Р	27-06-2017	A
28-01-2017	Sat	28-02-2017	Р	28-03-2017	Р	28-04-2017	Α	28-06-2017	Р
29-01-2017	Sun			29-03-2017	Р	29-04-2017	Sat	29-06-2017	Р
30-01-2017	Р			30-03-2017	Р	30-04-2017	Sun	30-06-2017	Р
31-01-2017	Р			31-03-2017					
Name and a sub-	the second se	the second se	the second se						

* May - Summer Vacation

MTWU-ITTE Coordinator

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MOTHER TERESA WOMEN'S UNIVERSITY KODAIKANAL – 624 102



INCUBATION AND TECHNOLOGY TRANSFER CENTRE

15.7.2019

Dr.S.Vimala Coordinator

CIRCULAR

This is to inform that the Incubation and Technology Transfer centre of Mother Teresa Women's University has convened a meeting on 18.7.2019 to discuss about the avenues in terms of funding sources and business plans for initiating Start-Ups. Interested students (both PG and Ph.D.), from all departments can come forward to participate in the meeting with innovative project proposals to get benefited out of this.

(S.VIMALA) S place Nunthi



MOTHER TERESA WOMEN'S UNIVERSITY

KODAIKANAL - 624 102

INCUBATION AND TECHNOLOGY TRANSFER CENTRE

15 Minutes of the Meeting held on 207, 2019 to scrutinize the research project proposals submitted by Ms.M.Jesima and Ms.J.Sakthimatha of III MCA towards the development of Software packages for Old Age Home Management System and Fertilizer Management System respectively.

Members Present

- 1. Research Dean Mother Teresa Women's University
- A. Dean, Science Mother Teresa Women's University
- Head i/c 3 Department of Computer Science
- A. Coordinator Incubation and Technology Transfer Centre

The committee recommends that Ms.J.Sakthimatha and Ms.M.Jesima's proposals hava been selected and they may be permitted by the Coordinator, Incubation and Technology Transfer Centre of Mother Teresa Women's University to make use of the Infrastructure and other facilities in the University campus to carry out their software development work from Nov., 2019 to Apr. 2020.

1. J. Kawali 2. Manther (D. D. Usha Raja Nanthini)

3.



Signature 1. Kasale

16.7.2019

From Ms.M.Jesima

(Reg. No.: 184405ER008)

III MCA Department of Computer Science Mother Teresa Women's University Kodaikanal

Through
1. The Head i/c
Department of Computer Science
Mother Teresa Women's University and

 The Research Dean Mother Teresa Women's University Kodaikanal

To

The Coordinator Incubation and Technology Transfer Centre Mother Teresa Women's University Kodaikanal

Respected Madam,

With reference to your circular dated 15.7.2019, I am interested in developing a software package titled "Old Age Home Management System" to be used by a Oldage Home for maintaining the Oldage Home in an efficient way. In this regard, I herewith submit a proposal for the same. I therefore request you to kindly provide me infrastructure, software, hardware facility and staff's expertise for a period of five months from November, 2019 to March, 2020 to complete the product.

Thank you.

Yours sincerely

Jesima M

OLD AGE HOME MANAGEMENT SYSTEM MASTER OF COMPUTER APPLICATION

M.Jesima

(Reg.No.184405ER008)

Department of Computer Science Mother Teresa Women's University, Kodaikanal jesimamuthumeeran@gmail.com

Abstract: This project has been proposed to take care the life of the he and destitute and old Aged persons in the society and even those Aged persons are neglected by the family and those who do not get proper care due to poverty, so that they live as valued members of the society with a peace of mind before going to their eternal home. This project is mainly proposed for maintaining donation details, Old aged person details, Expenses and Staff details to maintain this home. Here the donation details are all about donated person information, amount details, contact details such as name, address, contact no and donated amount. Old age person details are like name, gender, age, address, reason, health details, and pension details. Expenses are all about Food and Clothes, health care facilities, sustainability of an old age home such as beds, benches, tables, plates, drinking glasses, cooking equipments, First aid medical equipments and daily expenses. Staff details such as their personal information, salary information.

Jesima.M

16.7.2019

From Ms.J.Shakthi Matha (Reg.No. 184405ER016) III MCA Department of Computer Science Mother Teresa Women's University Kodaikanal

Through 1. The Head i/c Department of Computer Science Mother Teresa Women's University and

2. The Research Dean Mother Teresa Women's University Kodaikanal

То

The Coordinator Incubation and Technology Transfer Centre Mother Teresa Women's University Kodaikanal

Respected Madam,

With reference to your circular dated 15.7.2019, I am interested in developing a software package titled "Old Age Home Management System" to be used by a Oldage Home for maintaining the Oldage Home in an efficient way. In this regard, I herewith submit a proposal for the same. I therefore request you to kindly provide me infrastructure, software, hardware facility and staff's expertise for a period of five months from November, 2019 to March, 2020 to complete the product.

Thank you.

Yours sincerely J. Sakthi watha

FERTILIZER MANAGEMENT SYSTEM Ms.J.Sakthimatha, III MCA Department of Computer Science

Mother Teresa Women's University, Kodaikanal Sakthimatha28@gmail.com

ABSTRACT

This Project entitled as "FERTILIZER MANAGEMENT SYSTEM" is a windowsbased application used for managing various processes carried out in the fertilizer shop. In this system, the admin is the super user who keeps track all the activities managed in the fertilizer shop. The main aim of the project is managing the details of the fertilizers and pesticides stock through the system, sales etc., and provides security for the owner of the shop.

The admin is provided with Login ID and password. After successful authentication, the processes like creating items and its category, purchase details, sale details and their payments details, current stock values are handled in this application efficiently.

The project analyzes all the requirements of the fertilizer shop and splits the unique process into separate modules. The major processes carried out by this system are:

- Item Category and Item Creation
- Purchase Entry and Purchase Return Entry
- Sale Entry and Sale Return Entry
- Retailer Creation
- Retailer Payment Management
- Expense Maintenance
- · Various reports like Sales Report, Bill Generation etc.,

This system eliminates manual searching of the products which will be in stock. This also makes easy process of adding and deleting products entry. Administrator has the rights to make changes in the entire system.

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MOTHER TERESA WOMEN'S UNIVERSITY KODAIKANAL – 624 102 INCUBATION AND TECHNOLOGY TRANSFER CENTRE



25.7.2019

Dr.S.Vimala Coordinator

To The Head Department of Computer Science Mother Teresa Women's University Kodaikanal

Respected Madam,

This is to bring to your kind notice, that the project proposals submitted by Ms.M.Jesima (184405ER008) and Ms.J.Sakthimatha (Reg.No.: 184405ER016) of III MCA have been scrutinized and selected for carrying out the work in the Department of Computer Science by using the facilities available for a period of five months from Nov., 2019 to Apr.' 2020. We wish them all Success!!

Thank you.

S.VIMALA)

DEPARTMENT OF COMPUTER SCIENCE

MOTHER TERESA WOMEN'S UNIVERSITY – KODAIKANAL

ATTENDANCE

Name: J.Sakthi Matha Register No.: 184405ER016 Class: III MCA Nov'2019 Dec'2019 Att. Att. Jan'2020 Att. Feb'2020 Att Mar'2020 Att 01-11-2019 P 01-12-2019 Sun 01-01-2020 Н 01-02-2020 01-03-2020 Sat Sun 02-11-2019 Sat 02-12-2019 P 02-01-2020 P 02-02-2020 Sun 02-03-2020 P 03-12-2019 P 03-01-2020 Р 03-11-2019 Sun 03-02-2020 Ρ 03-03-2020 P 04-12-2019 04-01-2020 04-02-2020 04-11-2019 P P Sat P 04-03-2020 P 05-12-2019 P 05-01-2020 05-11-2019 Sun 05-02-2020 P Ρ 05-03-2020 P 06-11-2019 P 06-12-2019 P 06-01-2020 P 06-02-2020 P 06-03-2020 P 07-12-2019 07-01-2020 07-02-2020 Sat P Ρ 07-03-2020 Sat 07-11-2019 P 08-12-2019 08-01-2020 P 08-02-2020 Sat 08-03-2020 08-11-2019 P Sun Sun 09-12-2019 09-01-2020 P 09-02-2020 Sun 09-03-2020 P 09-11-2019 Sat P 10-03-2020 P 10-11-2019 10-12-2019 P 10-01-2020 P 10-02-2020 P Sun 11-02-2020 11-03-2020 P 11-12-2019 11-01-2020 Sat P P 11-11-2019 A 12-03-2020 P 12-02-2020 12-01-2020 P 12-11-2019 P 12-12-2019 A Sun 13-01-2020 13-02-2020 P 13-03-2020 Ρ н 13-12-2019 13-11-2019 P A 14-03-2020 Sat 14-01-2020 H 14-02-2020 P 14-12-2019 Sat P 14-11-2019 15-02-2020 Sat 15-03-2020 Sun 15-01-2020 Н 15-11-2019 P 15-12-2019 Sun P 16-02-2020 Sun 16-03-2020 16-01-2020 P 16-12-2019 Ρ 16-11-2019 Sat Covid 17-03-2020 A 17-01-2020 Ρ 17-02-2020 17-12-2019 P 17-11-2019 Sun Lockdown 18-03-2020 18-02-2020 P 18-01-2020 Sat 18-12-2019 P 18-11-2019 P 19-03-2020 Started 19-02-2020 P 19-01-2020 Sun 19-12-2019 P 19-11-2019 P 20-03-2020 P 20-02-2020 20-12-2019 A 20-01-2020 A 20-11-2019 Р 21-03-2020 P 21-01-2020 Р 21-02-2020 21-12-2019 Sat P 21-11-2019 22-03-2020 22-02-2020 Sat P 22-01-2020 22-12-2019 Sun 22-11-2019 A 23-03-2020 23-02-2020 Sun 23-01-2020 P Р 23-12-2019 23-11-2019 Sat 24-03-2020 24-02-2020 P 24-12-2019 24-01-2020 P P 24-11-2019 Sun 25-03-2020 P 25-02-2020 25-01-2020 Sat 25-12-2019 Н 25-11-2019 P 26-03-2020 P 26-02-2020 26-01-2020 Sun 26-12-2019 A 26-11-2019 P 27-03-2020 P 27-02-2020 27-01-2020 Р 27-11-2019 P 27-12-2019 A 28-03-2020 P 28-02-2020 28-01-2020 P 28-12-2019 28-11-2019 Sat P 29-03-2020 Sat 29-02-2020 P 29-01-2020 29-11-2019 P 29-12-2019 Sun 30-03-2020 30-01-2020 Р 30-12-2019 Р 30-11-2019 Sat 31-03-2020 Р 31-01-2020 31-12-2019 P

Coordinator, MTWU-ITTC

Head of the Department

DEPARTMENT OF COMPUTER SCIENCE

MOTHER TERESA WOMEN'S UNIVERSITY – KODAIKANAL

ATTENDANCE

Name: M.Jesima

Register No.: 184405ER008

Class: III MCA

Nov'2019	Att.	Dec'2019	Att	lan'2020					
01-11-2019	P	01-12-2019	Sup	01.01.2020	Att.	Feb'2020	Att.	Mar'2020	Att.
02-11-2019	Sat	02-12-2019	P	02-01-2020	н	01-02-2020	Sat	01-03-2020	Sun
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12-11-2019	Ρ	12-12-2019	A	12-01-2020	Sun	12-02-2020	Р	12-03-2020	Р
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14-11-2019	A	14-12-2019	Sat	14-01-2020	н	14-02-2020	Р	14-03-2020	Sat
15-11-2019	A	15-12-2019	Sun	15-01-2020	н	15-02-2020	Sat	15-03-2020	Sun
16-11-2019	Sat	16-12-2019	Ρ	16-01-2020	Р	16-02-2020	Sun	16-03-2020	Р
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18-11-2019	Р	18-12-2019	Р	18-01-2020	Sat	18-02-2020	P	18-03-2020	Lockdown
19-11-2019	Р	19-12-2019	P	19-01-2020	Sun	19-02-2020	P	19-03-2020	Started
20-11-2019	P	20-12-2019	A	20-01-2020	A	20-02-2020	P	20-03-2020	
21-11-2019	P	21-12-2019	Sat	21-01-2020	Р	21-02-2020	A	21-03-2020	
22-11-2019	P	22-12-2019	Sun	22-01-2020	Р	22-02-2020	Sat	22-03-2020	
23-11-2019	Sat	23-12-2019	Р	23-01-2020	Р	23-02-2020	Sun	23-03-2020	
24-11-2019	Sun	24-12-2019	P	24-01-2020	Р	24-02-2020	P	24-03-2020	
25-11-2019	P	25-12-2019	н	25-01-2020	Sat	25-02-2020	P	25-03-2020	
26-11-2019	P	26-12-2019	A	26-01-2020	Sun	26-02-2020	Р	26-03-2020	
27-11-2019	P	27-12-2019	A	27-01-2020	P	27-02-2020	Р	27-03-2020	
28-11-2019	P	28-12-2019	Sat	28-01-2020	P	28-02-2020	P	28-03-2020	
29-11-2019	P	29-12-2019	Sun	29-01-2020	P	29-02-2020	Sat	29-03-2020	
30-11-2019	Sat	30-12-2019	P	30-01-2020	P			30-03-2020	
	Jui	21.12.2010	D	21 01 2020	D			31-03-2020	

Coordinator, MTWU-ITTC

Head of the Department



Date: 15.4.2020

CERTIFICATE OF APPRECIATION

This is to certify that Ms.M.JESIMA (Reg.No. 184405ER008), III MCA (Batch: 2018-2020), Department of Computer Science, Mother Teresa Women's University, Kodaikanal has been paid an amount of Rs.15,000/- for her Software Package titled 'Old Age Home Management System' developed with the help of Mother Teresa Women's University – Incubation and Technology Transfer Centre (MTWU-ITTC). The package satisfies all the requirements. We wish Ms.M.Jesima, all the Best in all her future endeavors!

For PHOENIX SOFTECH

S. SUKUMAR **Project Manager**

No 266, II Floor, Good Shed Street, Madurai - 625 001. PH : 0452-2343527, 2350078 Website : www.phoenixsoftech.in



PHOENIX SOFTECH

Date: 15.4.2020

CASH VOUCHER

Ma M.Jasima of III MCA Department of Computer Science, Mother Teresa Women's University, Kodakanal has been paid an amount of Rs. 15,000- for the software package titled "Old Age Home management System" developed by her.

For PHOENIX SOFTECH

S. SÜKUMAR **Project Manager**

Jesima. M Received by

.

No 266, II Floor, Good Shed Street, Madurai - 625 001, PH : 0452-2343527, 2350078 Website : www.phoenixsoftech.in

.



PHOENIX SOFTECH

Date: 15.4.2020

CERTIFICATE OF APPRECIATION

This is to certify that Ms.J.SHAKTHI MATHA (Reg. No. 184405ER016), III MCA (Batch: 2018-2020), Department of Computer Science, Mother Teresa Women's University, Kodaikanal has been paid an amount of Rs.15,000/- for her Software Package titled 'Fertilizer Management System' developed with the help of Mother Teresa Women's University – Incubation and Technology Transfer Centre (MTWU-ITTC). The package satisfies all the requirements. We wish Ms.J.Shakthi Matha, all the Best in all her future endeavors!

For PHOENIX SOFTECH

S. SUKUMAR **Project Manager**

No 266, II Floor, Good Shed Street, Madurai - 625 001. PH : 0452-2343527, 2350078 Website : www.phoenixsoftech.in

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PHOENIX SOFTECH

Date: 15.4.2020

CASH VOUCHER

Ms.J.Shakthi of III MCA, Department of Computer Science, Mother Teresa Women's University has been pais an amount of Rs.15,000/- for the software package titled '*Ferriliser Management System*" developed by her.

For PHOENIX SOFTECH



Shakthi matha . T

Received By

No 266, II Floor. Good Shed Street, Madurai - 625 001. PH : 0452-2343527, 2350078 Website : www.phoenixsoftech.in



MOTHER TERESA WOMEN'S UNIVERSITY KODAIKANAL – 624 102 INCUBATION AND TECHNOLOGY TRANSFER CENTRE



19.8.2020

Dr.S.Vimala Coordinator

CIRCULAR

This is to inform that the Incubation and Technology Transfer centre of Mother Teresa Women's University has convened a meeting on 24.8.2020 to discuss about the avenues in terms of funding sources and business plans for initiating Start-Ups. Interested students (both PG and Ph.D.), from all departments can come forward to participate in the meeting with innovative project proposals to get benefited out of this.

19/8/2020 (S.VIMALA)



Archi

21.8.2020

From R.P.Architha (194405ER005) III MCA Department of Computer Science Mother Teresa Women's University Research & Extension Centre Madurai

Through

1. The Head

Department of Computer Science Mother Teresa Women's University Research and Extension Centre Madurai

2. The Research Dean Mother Teresa Women's University Kodaikanal

То

The Coordinator Incubation and Technology Transfer Centre Mother Teresa Women's University Kodaikanal

Respected Madam,

With reference to your circular dated 19.8.2020, I would like to develop a software product titled 'Gesture Controlled Device for Intellectually/Physically Challenged'. This will be helpful for the people who are physically / intellectually challenged. In this regard, I herewith submit a proposal for the same. I therefore request you to kindly provide me infrastructure, software, hardware facility and staff's expertise for a period of four months to complete the product on verifying the proposal.

Thank you.

Andipa & Delimane

Yours sincerely R. P. Architha

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Gesture Controlled Device for Intellectually/Physically Challenged

R.P.Architha

III MCA – Reg. No.: 194405ER005

Department of Computer Science

Mother Teresa Women's University Research & Extension Centre

Technology Used: MEMS (Micro Electro Mechanical System) Sensor with Machine Learning Techniques

Gesture Controlled Device is a real boon to the Intellectually/Physically challenged persons. Using MEMS (Micro Electro Mechanical System) sensor with Machine learning techniques based wearable gloves, the individual's need could be translated from gesture action to voice. The device continuously monitors the person's hand movements and responds in the form of voice to meet out the requirements of the person.

Jusipa &



Minutes of the Meeting held on 27.8.2020 to scrutinize the research project proposal submitted by Ms.R.P.Archita of III MCA (Reg. No. 194405ER005) towards the development of Gesture Controlled Device for Intellectually / Physically Challenged.

Members Present

- 1. Research Dean Mother Teresa Women's University
- 2. Dean, Science Mother Teresa Women's University
- 3. Head Department of Computer Science
- 4. Coordinator Incubation and Technology Transfer Centre

Signature

Deliverane Smedey Mayor &

The committee recommends that Ms.R.P.Architha's proposal has been selected and she may be permitted by the Coordinator, Incubation and Technology Transfer Centre of Mother Teresa Women's University to make use of the Infrastructure and other facilities in the University campus to carry out her development work.

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2. Juneday

Jusipa & 3.

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MOTHER TERESA WOMEN'S UNIVERSITY KODAIKANAL – 624 102 INCUBATION AND TECHNOLOGY TRANSFER CENTRE



9.9.2020

Dr.S.Vimala Coordinator

To The Head Department of Computer Science Mother Teresa Women's University Research & Extension Centre Madurai

Respected Madam,

This is to bring to your kind notice, that the project proposal submitted by Ms.Architha (Reg. No.: 194405ER005), III MCA has been scrutinized and selected for carrying out the work in the Department of Computer Science, Mother Teresa Women's University Research and Extension Centre, Madurai by using the facilities available for a period of five months from Nov.'2020 to Mar.'2021. We wish her all Success!!

Thank you.

(S.VIMALA)

DEPARTMENT OF COMPUTER SCIENCE

MOTHER TERESA WOMEN'S UNIVERSITY - KODAIKANAL

ATTENDANCE

Name: R.P.Architha

Register Number: 194405ER005

Class: III MCA

Date	Att.	Date	Att	Data		1			
01-11-2020	Sun	01-12-2020	D D	Date	Att.	Date	Att.	Date	Att.
02-11-2020	P	02-12-2020		01-01-2021	н	01-02-2021	Р	01-03-2021	Sun
03-11-2020	D	02-12-2020	P	02-01-2021	P	02-02-2021	Р	02-03-2021	P
04-11-2020	P	03-12-2020	P	03-01-2021	Р	03-02-2021	Р	03-03-2021	P
05 11 2020		04-12-2020	P	04-01-2021	Sat	04-02-2021	Р	04-03-2021	Р
05-11-2020	P	05-12-2020	Sat	05-01-2021	Sun	05-02-2021	Р	05-03-2021	Р
06-11-2020	Р	06-12-2020	Sun	06-01-2021	Р	06-02-2021	Р	06-03-2021	Ρ
07-11-2020	Sat	07-12-2020	Р	07-01-2021	Р	07-02-2021	Ρ	07-03-2021	Sat
08-11-2020	Sun	08-12-2020	Р	08-01-2021	Ρ	08-02-2021	Sat	08-03-2021	Sun
09-11-2020	Р	09-12-2020	Р	09-01-2021	Р	09-02-2021	Sun	09-03-2021	Р
10-11-2020	Р	10-12-2020	Р	10-01-2021	Ρ	10-02-2021	Ρ	10-03-2021	Р
11-11-2020	Р	11-12-2020	Р	11-01-2021	Sat	11-02-2021	Ρ	11-03-2021	Р
12-11-2020	P	12-12-2020	Sat	12-01-2021	Sun	12-02-2021	Ρ	12-03-2021	Р
13-11-2020	P	13-12-2020	Sun	13-01-2021	Ρ	13-02-2021	Ρ	13-03-2021	Ρ
14-11-2020	Sat	14-12-2020	Р	14-01-2021	Ρ	14-02-2021	Ρ	14-03-2021	Sat
15-11-2020	Sun	15-12-2020	Р	15-01-2021	Ρ	15-02-2021	Sat	15-03-2021	Sun
16-11-2020	P	16-12-2020	Р	16-01-2021	Ρ	16-02-2021	Sun	16-03-2021	Ρ
17-11-2020	P	17-12-2020	Р	17-01-2021	Ρ	17-02-2021	Ρ	17-03-2021	Ρ
18-11-2020	Р	18-12-2020	P	18-01-2021	Sat	18-02-2021	Ρ	18-03-2021	Ρ
19-11-2020	Р	19-12-2020	Sat	19-01-2021	Sun	19-02-2021	Ρ	19-03-2021	Р
20-11-2020	Р	20-12-2020	Sun	20-01-2021	Ρ	20-02-2021	Ρ	20-03-2021	Р
21-11-2020	Sat	21-12-2020	Р	21-01-2021	Ρ	21-02-2021	Ρ	21-03-2021	Sat
22-11-2020	Sun	22-12-2020	Р	22-01-2021	Ρ	22-02-2021	Sat	22-03-2021	Sun
23-11-2020	Р	23-12-2020	Ρ	23-01-2021	Ρ	23-02-2021	Sun	23-03-2021	Р
24-11-2020	Р	24-12-2020	Р	24-01-2021	Ρ	24-02-2021	Р	24-03-2021	Р
25-11-2020	Р	25-12-2020	Р	25-01-2021	Sat	25-02-2021	Р	25-03-2021	Р
26-11-2020	Р	26-12-2020	Sat	26-01-2021	Sun	26-02-2021	Ρ	26-03-2021	Р
27-11-2020	Р	27-12-2020	Sun	27-01-2021	Ρ	27-02-2021	Ρ	27-03-2021	Р
28-11-2020	Sat	28-12-2020	Р	28-01-2021	Ρ	28-02-2021	Ρ	28-03-2021	Sat
29-11-2020	Sun	29-12-2020	Ρ	29-01-2021	Ρ			29-03-2021	Sun
30-11-2020	Р	30-12-2020	Р	30-01-2021	Ρ			30-03-2021	Р
		31-12-2020	Ρ	31-01-2021	Ρ			31-03-2021	Р

Coordinator, MTWU – ITTC

Indipa &

Head of the Department



MOTHER TERESA WOMEN'S UNIVERSITY KODAIKANAL – 624 102 INCUBATION AND TECHNOLOGY TRANSFER CENTRE



2.8.2019

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Dr.S.Vimala Coordinator

CIRCULAR

This is to inform that the Incubation and Technology Transfer centre of Mother Teresa Women's University has convened a meeting on 7.8.2019 to discuss about the avenues in terms of funding sources and business plans for initiating Start-Ups. Interested students (both PG and Ph.D.), from all departments can come forward to participate in the meeting with innovative project proposals to get benefited out of this.

(S.VIMALA) ualabiam Sa Maari Shu

5.8.2019

From J.Michael Antony Sylvia (PHDCS19F633) Ph.D. Scholar Department of Computer Science Mother Teresa Women's University Research & Extension Centre Madurai

Through

1. The Head

Department of Computer Science Mother Teresa Women's University Research and Extension Centre Madurai

2. The Research Dean Mother Teresa Women's University Kodaikanal

То

The Coordinator Incubation and Technology Transfer Centre Mother Teresa Women's University Kodaikanal

Respected Madam,

With reference to your circular dated 2.8.2019, I would like to develop a software product titled 'Smart Bin for Smart City'. A systematic cleaning of streets can be done with this system. In this regard, I herewith submit a proposal for the same. I therefore request you to kindly provide me infrastructure, software, hardware facility and staff's expertise for a period of four months to complete the product on verifying the proposal.

Indysa &

Thank you.

Yours sincerely Thichard Anton

SMART BIN FOR SMART CITY

J.Michael Antony Sylvia Ph.D. Scholar – Reg. No.: PHDCS19F633 Department of Computer Science Mother Teresa Women's University Research & Extension Centre

Technology Used: Cloud Enabled IoT Technology

Abstract: Automation of solid waste clearance will give a solution to maintain clean, green and a smart city. Smart bin works with the technique of Cloud enabled IoT technology. Minute to minute data related to the level of solid waste is updated in the Cloud platform. When the solid waste reaches the maximum marked level of bin, an alert will be sent in the form of a call or message to the concerned person in the municipal office with the details of the bin location and identification, to facilitate immediate action.

J. Michael Antony System

Julyo &



MOTHER TERESA WOMEN'S UNIVERSITY

KODAIKANAL - 624 102



INCUBATION AND TECHNOLOGY TRANSFER CENTRE

Minutes of the Meeting held on 14.8.2019 to scrutinize the research project proposal submitted by J.Michael Antony Sylvia (Reg. No. PHDCS19F633), Ph.D. Scholar towards the development of Smart Bin for Smart City

Members Present

- 1. Research Dean Mother Teresa Women's University
- 2. Dean, Science Mother Teresa Women's University
- 3. Head Department of Computer Science
- 4. Coordinator Incubation and Technology Transfer Centre

The committee recommends that J.Michael Antony Sylvia's proposal has been selected and she may be permitted by the Coordinator, Incubation and Technology Transfer Centre of Mother Teresa Women's University to make use of the Infrastructure and other facilities in the University campus to carry out her development work.

1. Dulumene

2. Smadey

3. Indija. E

Signature

4. Bul



MOTHER TERESA WOMEN'S UNIVERSITY

KODAIKANAL – 624 102



INCUBATION AND TECHNOLOGY TRANSFER CENTRE

21.8.2019

Dr.S.Vimala Coordinator

To The Head Department of Computer Science Mother Teresa Women's University Research & Extension Centre Madurai

Respected Madam,

This is to bring to your kind notice, that the project proposal submitted by Ms.J.Michael Antony Sylvia (PHDCS19F633), Ph.D. Scholar has been scrutinized and selected for carrying out the work in the Department of Computer Science, Mother Teresa Women's University Research and Extension Centre, Madurai by using the facilities available for a period of four months from Oct.'2019 to Jan.'2020. We wish her all Success!!

Thank you.

(S.VIMALA)

DEPARTMENT OF COMPUTER SCIENCE

MOTHER TERESA WOMEN'S UNIVERSITY - KODAIKANAL

ATTENDANCE

Name: J.Michael Antony Sylvia

Register Number: PHDCS19F633

Ph.D.Scholar

Oct '2019	Att	Nov.'2019	Att	Dec.'2019	Att	Jan'2020	Att
01 10 2019	P	01-11-2019	P	01-12-2019	Sun	01-01-2020	H
02 10 2019	н	02-11-2019	Sat	02-12-2019	Р	02-01-2020	P
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16-10-2019	P	17.11.2019	Sun	17-12-2019	Р	17-01-2020	Р
17-10-2019	P	17-11-2019	D	18-12-2019	Р	18-01-2020	Sat
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asile Coordinator, MTWU-ITTC

Head of the Department





INCUBATION AND TECHNOLOGY TRANSFER CENTRE

11.8.2017

Dr.S.Vimala Coordinator

CIRCULAR

This is to inform that the Incubation and Technology Transfer centre of Mother Teresa Women's University has convened a meeting on 16.8.2017 to discuss about the avenues in terms of funding sources and business plans for initiating Start-Ups. Interested students (both PG and Ph.D.), from all departments can come forward to participate in the meeting with innovative project proposals to get benefited out of this.

North:

2017 (S.VIMALA)

14.8.2017

From S.Rabecca (164405ER024) III MCA Department of Computer Science Mother Teresa Women's University Research & Extension Centre Madurai

- Through
 1. The Head i/c
 Department of Computer Science
 Mother Teresa Women's University and
- 2. The Research Dean Mother Teresa Women's University Kodaikanal

To The Coordinator Incubation and Technology Transfer Centre Mother Teresa Women's University Kodaikanal

Respected Madam,

With reference to your circular dated 11.8.2017, I would like to develop a software product titled 'Smart Women Safety Dress' which would be a useful package for the safety of the women who involve in heavy house hold work. In this regard, I herewith submit a proposal for the same. I therefore request you to kindly provide me infrastructure, software, hardware facility and staff's expertise for a period of four months to complete the product on verifying the proposal.

Thank you.

Indysa &

Yours sincerely S. Rabecca

DEPARTMENT OF COMPUTER SCIENCE MOTHER TERESA WOMEN'S UNIVERSITY RESEARCH & EXTENSION CENTRE MADURAI

Ms.S.Rabecca

Reg. No.: 164405ER024

Batch: 2016 - 2017

Abstract: Smart Women Safety Dress is an innovative idea to protect women in the challenging world. The safety dress works based on the principle of wireless sensor networks. Sensor enabled devices are affixed to the wearing garment. Whenever a danger is sensed in the form of crushing the dress or trying to open the button, immediately an alert will be sent to the concerned care taker/parents through a message and a call.

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DEPARTMENT OF COMPUTER SCIENCE MOTHER TERESA WOMEN'S UNIVERSITY – KODAIKANAL



KODAIKANAL - 624 102



INCUBATION AND TECHNOLOGY TRANSFER CENTRE

Minutes of the Meeting held on 16.8.2017 to scrutinize the research project proposal submitted by S.Rabecca (Reg. NO.: 164405ER024) of III MCA towards the development of Software Tool for Smart Women Safety Dress.

Members Present

- 1. Research Dean Mother Teresa Women's University
- 2. Dean, Science Mother Teresa Women's University
- 3. Head Department of Computer Science
- 4. Coordinator Incubation and Technology Transfer Centre

Signature

Manthe Desupad

The committee recommends that Ms.S.Rabecca's proposal has been selected and she may be permitted by the Coordinator, Incubation and Technology Transfer Centre of Mother Teresa Women's University to make use of the Infrastructure and other facilities in the University campus to carry out her development work.

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MOTHER TERESA WOMEN'S UNIVERSITY

KODAIKANAL - 624 102



INCUBATION AND TECHNOLOGY TRANSFER CENTRE

23.8.2017

Dr.S.Vimala Coordinator

To The Head Department of Computer Science Mother Teresa Women's University Research & Extension Centre Kodaikanal

Respected Madam,

This is to bring to your kind notice, that the project proposal submitted by Ms.S.Rabecca (164405ER024) of III MCA has been scrutinized and selected for carrying out the work in the Department of Computer Science, Mother Teresa Women's University Research and Extension Centre, Madurai by using the facilities available for a period of five months from Nov., 2017 to Mar.' 2018. We wish her all Success!!

Thank you.

23/8/2017 (S.VIMALA)

DEPARTMENT OF COMPUTER SCIENCE

MOTHER TERESA WOMEN'S UNIVERSITY - KODAIKANAL

ATTENDANCE

Name: Ms.S.Rabecca

Register No.: 164405ER024

Batch: 2016 - 2018

Date	Att.	Date	Att.	Date	Att.	Date	Att.	Date
01-11-2017	Р	01-12-2017	P	01-01-2018	P	01-02-2018	A	01-03-2018
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Coordinator, MTWU - ITTC

× Ange L Head of the Department

Computer Science Department'of Computer science Mother Teresa Women's University-KODAILANAL.



MOTHER TERESA WOMEN'S UNIVERSITY KODAIKANAL – 624 102



INCUBATION AND TECHNOLOGY TRANSFER CENTRE

19.1.2017

Dr.S.Vimala Coordinator

AEX +

CIRCULAR

This is to inform that the Incubation and Technology Transfer centre of Mother Teresa Women's University has convened a meeting on 23.1.2017 to discuss about the avenues in terms of funding sources and business plans for initiating Start-Ups. Interested students (both PG and Ph.D.), from all departments can come forward to participate in the meeting with innovative project proposals to get benefited out of this.

(S.VIMALA) perosi gen Bobi

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24.1.2017

From Ms.B.N.Bobinath (PHDCS13F216) Research Scholar Department of Computer Science Mother Teresa Women's University Kodaikanal

Through

- The Head i/c
 Department of Computer Science
 Mother Teresa Women's University and
- 2. The Research Dean Mother Teresa Women's University Kodaikanal

To

The Coordinator Incubation and Technology Transfer Centre Mother Teresa Women's University Kodaikanal

Respected Madam,

With reference to your circular dated 19.1.2017, I would like to develop a software product titled 'AI based Bison Detection on Real Time Video Stream' which would be a useful package for the safety of the students of Mother Teresa Women's University, later the usage of this software may be taken to the Kodaikanal public who live near the forest. In this regard, I herewith submit a proposal for the same. I therefore request you to kindly provide me infrastructure, software, hardware facility and staff's expertise for a period of six months to complete the product on verifying the proposal.

Thank you.

Yours sincerely

Bolinth

Forwordshad

PROJECT PROPOSAL

(i) Project Title: AI based Bison Detection on Real Time Video Stream

(ii) INTRODUCTION

India has the forest coverage area of 712,249 square kilometers. Due to deforestation for varied reasons, the forest area is getting reduced day by day. As a result, the wild animals face major threat and very often they are forced to enter into the human habitats for want of food and water causing huge loss to the agriculture and human life. The wild animals pose greater threat to the tribal populations and their livelihood. Cases of Elephant trampling and Bison attack (Indian Guard) are being reported throughout the country, everyday. So it is very important to develop a new technique for the detection of wild animals in the forest and tribal areas in order to safeguard the human lives.

The main aim of the proposed work is to develop an image processing technique to detect the wild animals' entry in to the residential areas adjacent to the forest. The proposed system is designed to detect the movement of animal and offer a warning. Comparing with human-face, detection/identification, a lot of challenges has to be addressed in animal detection. For animal detection (other wild animals), too many differences in color, shapes, and other variations are to be considered. Mist formation in Hill Station is another major challenge which requires cameras with advanced features.



Image of an Indian Gaur

Bison animal conflict is a major problem leading to human death and injuries. In this work, I propose an automated unsupervised image detection system as a solution to the

endangerment caused by bison. The bison or other wild animals image is captured in the particular border areas and is sent to a base station via a network. The received image is subjected to image-feature-extraction and similarity match between the animal's query image and the database image using image vision algorithms. An alert message such as noise that annoys the animals, alarm with respect to animal movement is sent to the people indicating that an animal has been detected in the area near the human habitat. The work proposes an optimized distance metric to improve the image retrieval time from the database.

iii) VICTIMS DUE TO BISON (INDIAN GAUR) ATTACK IN KODAIKANAL

Case1: <u>https://www.thehindu.com/news/cities/Madurai/man-dies-in-attack-by-indian-gaur-kodaikanal/article26535827.ece</u>

A 55-year-old man, Jebaraj of Vettuvarai near Vilpatti near here, was killed in an attack by an Indian gaur at his house on Thursday.

Police said that Jebaraj was moving around the garden when he spotted the wild animal. Apprehending trouble, he attempted to run inside the house, but the gaur attacked him, killing him on the spot.

On information, forest officials and police arrived at the spot. The body was sent to hospital for a post mortem. Officials said Jebaraj's wife Jebarani was Principal of the Constituent College of Mother Theresa Women's University. Jebaraj used to win prizes in the annual boat race events held in Kodaikanal lake.

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India Rowing March 15, 2019 - 🛱

The President Rowing Federation of India expresses deep regret to learn of the tragic demise of Mr Paul Robertson Jebaraj of Kodaikanal Rowing club & Member of TARA, in a horrific attack by a lone bison on his farm. Jebba as he was fondly known, was an ardent supporter of Rowing and a keen oarsman himself. We in the Rowing family, will miss his smiling presence at Regattas in the South where he was permanently visible and lending a helping hand in the conduct of the events.

Rest in peace dear Jebba, May God give the strength to his wife and children to bear this tragic and untimely loss of a wonderful human being.

wis Rajiaxini Singh Deo,	
President,	
Rowing Federation India	

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Case2: The following figure (a) shows the Gaur chasing a woman in a tourist spot of Kodaikanal.







People living in the hill station have been complaining of movement of wild animals in habitations and private estates. Chasing them deep into the forest and maintaining a constant vigil alone would save human lives, environment activists said.

iii) Origin of Research Problem

A bison fell down in a septic tank inside the campus of Mother Teresa Women's University during the month of July, 2020. It's a major threat to the girl students of the University. By installing the Animal Entry Detection system in IoT sensors, alarm can be given to warn the

...

students about the entry of the animals and a sound can be produced to drive the animals away protecting them in turn from being attacked by the human beings.



Solution:

1. On detecting the entry of animals, an alarming sound may be given to the students residing in the hostel to prevent them from coming out of their rooms. This is applicable for other people who reside in forest areas.

iv) Objective of the Work

Intelligent Region Safety and Notifying Assistance systems are very helpful to reduce the number of accidents that are happening due to intrusion of animals. The primary focus of the proposed work is to detect animals on roads/campus/particular regions, which can have the potential application of identifying the animal entry in border areas. Specific objectives of the research work are:

- To develop an automatic Bison/ wild animals detection system for residential areas and forest border areas.
- To find the estimated distance of the detected animal/fire incidents from the motion video/camera monitoring in specific regions.
- To develop an alert system once the animal/incidents gets detected in the area, which may help the people in applying or taking other necessary corrective actions for avoiding serious events due to animal entry.

due to camera motion) is presented in subsequent studies [8] and [9]. The authors also state that other moving objects apart from the object of interest may be falsely detected as an animal.

In [11], Dabarera and Rodrigo proposed appearance based recognition algorithms for identification of elephants. Given the frontal face image of an elephant, the system searches the individual elephant using vision algorithms and gives the result as, already identified elephant, or as a new identification. In [12], Ardovini et al. present an elephant photo identification system based on the shape comparison of the nicks characterizing the elephant's ears. In [13], Goswami et al. addressed identifying elephants from photographs, and comparing resultant capture recapture-based population parameter estimates using supervised visual identification of individual variations in tusk, ear fold and lobe shape. The authors show that this is a reliable technique for individual identification and subsequent estimation of population parameters. But in real time, the capture of elephant's front image is not possible.

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11. REVIEW OF RESEARCH AND DEVELOPMENT IN THE SUBJECT

Background Study

Applications built on detection of animals play a very vital role in providing solutions to various real-life problems [2]. The base for most of the applications is the detection of animals in the video or image. A study [1] shown that human beings have to take the final call while driving whether they can control their car to prevent collision with a response time of 150ms or not. The issue with the above approach is that human eyes get exhausted quickly and need rest, which is why this method is not that effective. Some scientific researchers [3] have proposed a method that requires the animals to take a pose towards the camera for the trigger, including face detection. The problem with this technique is that face detection requires animals to see into the camera which is, not necessarily captured by the road travel video. Animals can arrive from a scene from various directions and in different sizes, poses, and color.

Researchers in [4] tried to discover an animal's presence in the scene (image) affecting the power spectrum of the image. This method of animal detection was also considered not appropriate since quicker results with this approach would involve the massive amount of image processing in a short period [5].

Researchers in [6] also used the face detection technique initiated by Viola and Jones for a particular animal type. After the animal face is identified, the researchers track it over time. The problem with this technique is that face detection requires animals to see into the camera not necessarily captured by the road travel video. Animals can arrive from a scene from various directions and in different sizes, poses, and colors.

Researches [7] also revealed that it's hard to decide the threshold value as the background changes often. A method applicable to moving backgrounds (e.g., caused-bystray-animals-take-a-toll-on-the-economy [Accessed 3 February 2016].

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12. METHODOLOGY

Acquisition of Images

By installing image sensors in the desired areas, the images of moving Indian Gaur are captured using HD cameras. These images are preprocessed using any of the suitable filtering (noise removal) techniques in order to enhance the images suitable for processing.

Object Detection

AI and machine learning help computers to interpret the images as humans do. Image
processing along with Machine Learning, helps in building and training deep learning
models that can be used for object detection and tracking. The objects could be wild
animals, intruders, etc.

Framework for Video Processing Algorithm



Processing Steps in Recognizing Objects from Video

- 1. Input the Video
- Video, divided into related frames
 Divide the image frames into segments (regions)
- 4. Each region is considered as a separate image.
- 5. Pass all these regions (images) to the CNN and classify them into various classes.

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MOTHER TERESA WOMEN'S UNIVERSITY

KODAIKANAL - 624 102



INCUBATION AND TECHNOLOGY TRANSFER CENTRE

Minutes of the Meeting held on 27.1.2017 to scrutinize the research project proposal submitted by Ms.B.N.Bobinath towards the development of Software Tool for detecting the Bison using Input Video steam.

Members Present

- Research Dean Mother Teresa Women's University
- 2. Dean, Science Mother Teresa Women's University
- 3. Head i/c Department of Computer Science
- 4. Coordinator Incubation and Technology Transfer Centre

Signature

The committee recommends that Ms.B.N.Bobinath's proposal has been selected and she may be permitted by the Coordinator, Incubation and Technology Transfer Centre of Mother Teresa Women's University to make use of the Infrastructure and other facilities in the University campus to carry out her development work.

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MOTHER TERESA WOMEN'S UNIVERSITY

KODAIKANAL - 624 102



INCUBATION AND TECHNOLOGY TRANSFER CENTRE

2.2.2017

Dr.S.Vimala Coordinator

To The Head Department of Computer Science Mother Teresa Women's University Kodaikanal

Respected Madam,

This is to bring to your kind notice, that the project proposal submitted by Ms.B.N.Bobinath (Reg. No.: PHDCS13F216), Ph.D. Scholar has been scrutinized and selected for carrying out the work in the Department of Computer Science by using the facilities available for a period of six months from June, 2017 to December, 2017. We wish her all Success!!

Thank you

(S.VIMALA)



SMARTANT TECHNOLOGIES PVT LTD CIN U72300TN2015PTC103132 GST 33AAWCS4766J1ZL



05.01.2018

CERTIFICATE OF APPRECIATION

We honor Ms.B.N.Bobinath (Reg.No.: PHDCS13F216), Ph.D. Scholar (Batch: 2013-2018), Department of Computer Science, Mother Teresa Women's University, Kodaikanal with an amount of Rs.30,000/- for her Software Package (Research Outcome) titled 'AI based Bison Detection on Real Time Video Stream' developed with the help of Mother Teresa Women's University – Incubation and Technology Transfer Centre (MTWU-ITTC). This tool helps in identifying the entry of Bison in residential places and alerts the people by giving warnings. Smart Ant Technologies wishes her a bright future.

For SMARTANT TECHNOLOGIES

Authorized Signatory



SMARTANT TECHNOLOGIES PRIVATE LIMITED 5/9, 3rd Street Above SBI Bank(Side Entrance, Gill Nagar, Choolaimedu, Chennai - 600094 Email :Saravanan@Smartant.in | Website: www.smartant.in Contact No : +91 9962 54 76 54 ,+91 7299 51 53 54 © SMARTANT TECHNOLOGIES 2020, All Rights Reserved



SMARTANT TECHNOLOGIES PVT LTD CIN U72300TN2015PTC103132 GST 33AA WCS4766J1ZL



05.01.2018

CASH VOCHURE

PAID Ms.B.N.Bobinath (Reg.No.: PHDCS13F216), Ph.D. Scholar (Batch: 2013-2018), Department of Computer Science, Mother Teresa Women's University, Kodaikanal with an amount of Rs.30,000/- for her Software Package (Research Outcome) titled 'AI based Bison Detection on Real Time Video Stream'

For SMARTANT TECHNOLOGIES

Authorized Signatory



Receiver Signature

SMARTANT TECHNOLOGIES PRIVATE LIMITED

5/9, 3rd Street Above SBI Bank(Side Entrance, Gill Nagar, Choolaimedu, Chennai - 600094 Email :Saravanan@Smartant.in | Website: www.smartant.in Contact No : +91 9962 54 76 54,+91 7299 51 53 54 © SMARTANT TECHNOLOGIES 2020, All Rights Reserved

DEPARTMENT OF COMPUTER SCIENCE

MOTHER TERESA WOMEN'S UNIVERSITY - KODAIKANAL

Name: B.N.Bobinath

Register Number: PHDCS13F216

Ph.D.Scholar

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Coordinator, MTW-ITTC

Head of the Department





MTWU - INCUBATION AND TECHNOLOGY TRANSFER CENTRE

21.4.2020

From Dr.S.Vimala Coordinator Incubation and Technology Transfer Centre Mother Teresa Women's University Kodaikanal

То Dr.S.Meen Priya Dharshini Head & Director Department and Centre for Women's Studies Mother Teresa Women's University Kodaikanal

Dear Madam,

Congratulations for the work proposed by you to come out with an Online Recommendation System called "Madras Market" which would benefit the Self Help Group people in selling their products to the needy people through online during the COVID period. With reference to your letter dated 27.4.2020, we assure that Ms.Vasanthi will be provided training in relevant software to develop the Android Application 'Madras Market'. She may use the expertise of Computer Science faculty of Mother Teresa Women's University. I wish her all success!

Thank you.

Yours Sincerely 21/4/2020

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TAMILNADU CORPORATION FOR DEVELOPMENT OF WOMEN LTD., (A GOVERNMENT OF TAMILNADU UNDERTAKING) Annai Teresa Mahalir Valagam, 1st Floor, Valluvarkottam High Road, Nungambakkam, Chennai - 600 034.

I whole heartedly appreciate the efforts of Mrs. Vasanthi, APO TNULM along with her Research Supervisor Dr. S. Meena Priya dharshini, Head and Director i/c of Women's Studies, Mother Teresa Women's University in bring out Innovative concept of Madras Market App for uplift of Women Self Help Groups under TNULM, Chennai.

I wish both for their future efforts on Women Development.

Dr.J.U.CHANDRAKALA,I.A.S Managing Director/CEO Tamilnadu Urban Livelihood Mission

Phone : 91-44-2817 3412 / 13 / 14 Fax : 91-44-2817 3409 E-mail : tncdwho@yahoo.co.in Web : http://tamilnadumahalir.org

nttps://mail.google.com/mail/u



Mother Teresa Women's University Research and Extension Centre Department and Centre for Women's Studies SIPCOT Industrial Complex, Pallapatty, Nilakottai(Tk), Dindigul D1-624 201



Dr.S.Meena priya dharshini Head & Director

dcws.mtwu@gmail.com M.No:8300002282 Date: 27.04.2020

To

The Coordinator

Incubation Centre

Mother Teresa women's University

Kodaikanal

Dear Madam.

Warm Greetings! As part of the vision to provide maximum impact in the livelihood of women, myself and my research scholar Mrs.Vasanthi have proposed to launch an app in android named "Madras Market". This app will provide a platform for marketing and sale of grocery and SHG products to the needy people during this pandemic situation. I will detail the concept note very soon.

I request your kindness to provide online training to the scholar in develop app in android.

Thank you

Yours Sincerely

Suppedlood.



TAMILNADU CORPORATION FOR DEVELOPMENT OF WOMEN LTD., (A GOVERNMENT OF TAMILNADU UNDERTAKING) Annai Teresa Mahalir Valagam, 1st Floor, Valluvarkottam High Road, Nungambakkam, Chennai - 600 034.

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Phone : 91-44-2817 3412 / 13 / 14 Fax : 91-44-2817 3409 E-mail : tncdwho@yahoo.co.in Web : http://tamilnadumahalir.org



வாதுமக்களுக்குத் தேவையான மளிகைப் யொருட்களை வீட்டிற்கே வந்து வழங்கும் சுய உதவிக் குழுக்களின் 'Madras Market' செயலி துவக்கம்

with \$ the side

துபிழகாடு நகரப்புற பெழலாகார இயல்கத்தின (சார்ரில், சென்னை மான் உத்தில் செல்லார்ம் பத்து அன்விவான கூட்டமைப்புகள் இன்னத்து 'செத்த மண்டல் நகரப்புற அன்வின்ன கூட்டமைப்பு (பரப்ப கெண்டை 5ல் மேன்றி என்ற பெற்றில் பறிவு சென்ற கடி கொண்ட 5ல் மேன்றி என்ற பெற்றில் பறிவு சென்ற கடி கொடு நகரப்புற இச்சுதி வருகின்றன. இச்சுப் பல்பில் காட்டிற வருதிற்கு இப்பைகர்கின் மூலம் நகர்ப்புற கல் கத்தில் குழுக்களின் வனாச்சிக்காக்ப் பல்வேறு வாழ்வார்பு செல்லாடுகள் பெற்கொள்ளப்பட்டு வருகின்றன.

தற்போது கொரோன் வரா கல்வ காரணமாகப் பொதுமக்கள் தல்களுக்குத் தேவையான மனின்னப் பொகும்.கணை வாங்க சிரம்பட்டு வருஷ்றனர் மேலும் அவர்கள் வெளியில் வருவதால் கொரோனர் என்றன் தோற்று பரவல் அடுவரிக்கிறது இந்நினைவைத் தடுக்கும் வகையில் தமிழ்தாடு நகரப்புற வாழவாதார இயக்கத்தின் சார்பில், 16வ்வங்கள் என்ற செயலி கருவாக்கடாம் டுள்ளது.

இந்த செயலியினை தமிழ்நாடு மகவிர், யேம்பாட்டு திறுவனத்தின் மேலாணமை இயக்குநர் (பொ) முனைவர் ஜெ டி சந்தொகளா இ.ஆப்ப அவர்கள் துவக்கி வைத்து. 31வில் Model என்ற செயலி மூலம் படுவு செய்தவர்களுக்குப் பொடுகளை வழங்கிலார்.

இதற்கழனினப்பாது பெருநகர சென்னை மாநகராட்சியின் பினது மண்டல் அலுவலா இரு இருமருகன் மற்றும் மக்சிர் இட்ட சுதலித் இட்ட அனுவலர் இரும்தி வசத்தி குமரோன் மற்றும் கய சுதலிக் குழுவினர் உடனிருந்தனர்.

ஆண் Maia செயலியைப் பொதுமக்கள தங்களின கைபேசிலில் படுலிறக்கம் சேயது, அதன் மூலம் பொதுமக்கள் தங்களுக்குத் தேவையான மனிகைப் மொருட்கள் குறித்த விபரங்களை அளித்து, தேவையாபை பொருட்களை தங்களின் வீட்டிற்கே வரவழைத்துப் பெற்றுக் சொன்னலாம்.

performent washe was



Mahas Market செயலியின் அல்ல பொறுமல் கணக்கூற தேவ்வாலான மனிலைப் பொறு கணைக் உலாண்டு சேர்த்து பணியில் தலாப்புற கல் உதலில் முழுக்கணைச் சேர்த்து அப்பல இருச்சும் வாணை பாணியக் கட்ட திறில இருச்சுது வாகனப் பெற்ற பெணிகள் பட்டும் (பண்ண Minor) எதிப்பட்டு வருதில்லிறனர் என்பது ஆறியில் தர்க்கது

மேலும் பெருந்து சென்னை மாநலரா லில பகுதியில் செயலாடும் கம் கருவில் குழு மகளிர அனற்னைந்து லமாத்து விலைவில பொருட்களை வாவில் அவற்றை 'ஏல்தி வன்ற பெயரில் மறுகட்டுமான்றை 'ஏல்தி அப்பொருட்களை ஏற்ட 'தின்தை தோத்ற அப்பொருட்களை ஏற்ட 'தின்தை தோத்ற செயலியின் மூலம் பொறுமக்களுக்கு விறுபனை செய்து வருதின்றனர்.

Mahan Marka செவல்யானது தற்போது பெருந்தார சேன்னை மாந்தராடன் பிரு நி கிரை கிரு பிட பி மே செயல்படுத்தப்பட்டு வருகிற்று எஞ்ச்வகும் காணைனில் தமிழகத்தின் அனைத்துப் பருற்பிலும் Maira Mater செயலியைப் பயன்படுத்த முயற்றொன் மேற்றொனைப்பறும்

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About this app

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Madras Market is an online shopping app, by SHG women in Chennai.

Shopping





GESTURE CONTROLLED DEVICE FOR INTELLECTUALLY/PHYSICALLY CHALLENGED

Ms.R.P.Archita of III MCA (Reg. No. 194405ER005)

Preamble:

Recording human gestures from a wearable sensor produces valuable information to implement control gestures or in healthcare services. A wearable sensor which is portable and easyto handle will be of great help to the Physically/intellectually challenged persons. A wearable sensor which is capable of conveying information from their motions. It is possible for some to convey information through their action, but in some other cases nothing can be understood by the way they convey the message. The remaining is not able to understand their way of convey the message. In order to overcome the complexity a Gesture controlled device is being developed for the Intellectually/Physicallychallenged persons. MEMS(Micro Electro Mechanical System) sensor with Machine learning techniques based Gesture Controlled Device is a real boon to the intellectually/Physicallychallenged persons. With the sensor based wearable gloves the individual's need can be translated as voice output. The device continuously monitors the person's hand movements and responds in the form of voice to meet out the requirements of the person.

Objectives Achieved:

- Intellectually/Physically Challenged persons requirements have been identified.
- Hand gesture is being recognized in each angle and converted into voice output form.
- Wireless communication (Bluetooth) module is being utilised to continuously send the sensed signals to any processing device for voice output.

Technology Adapted:

Gesture Controlled device has been implemented using MEMS(Micro Electro Mechanical System) sensorwith Bluetooth module for wireless connection which recognizes the motion of hand.Two sensors have been developed to recognize both hand gestures which can be wear as ring. Each hand pose has specific voice command which has been pre- recorded and stored. For every action the MEMS sensors get accelerated and give the signal to the microcontroller. The microcontroller matches the motion with the database and produces the specific voice message using the speaker. Also, our device has a wireless communication (i.e., Bluetooth) module to continuously send the sensed signals to any

processing device. With the sensor based wearable ring the individuals need can be translated through voice. The device continuously monitors the person's both hand movements and responds in the form of voice to meet out the requirements of the person. Our device works well for a number of hand gestures.



Fig: Working of the Gesture Controlled Device

Table1. Voice Outputs based on Hand Gestures recognized using two sensors

Hand Direction	Sensor 1 (Right Hand)	Sensor 2 (Left Hand)
Front Down	Need Water	Feeling Sleepy
Back Up	Need Bath	Need to go Toilet
Right Tilt	Not feeling Well	Need Tablets
Left Tilt	Need Snacks	Need Food

System Components:

- Mother board Nano
- Bluetooth module for wireless (Max 10 mts)
- Mems Sensor (X and Y axis) 2

Deployment & Output:



Fig: Gesture Controlled Device

Deployed SystemOutcome & Highlights

- The gesture control device have potential to continuously monitor people's gestures and produce voice output to meetout the demands of the individuals.
- The key feature of this device is interpretation of hand gesture into voice message.
- Useful device for Intellectually/Physically challenged personsto accurately recognize and meet their requirements in the form of voice output.

SMART CLASSROOM AUTOMATION A.Athisakthi , PHD2014CSF253

Preamble

Nowadays, most conventional classroom automation systems are designed for special purposes while the proposed system is a general purpose classroom automation system, which can be easily implemented in an existing classroom. Automated Smart Classroom uses fuzzy based wireless communication tocontrol the functioning of the classroom appliances. When an opened door is sensed through a metal proximity sensor with a passcode the classroom appliances can be controlled using mobile application. This will reduce the power wastage and misbehavior by the unauthorized persons.

Objectives Achieved:

- ▲ low cost and user friendly remote controlled classroom automation system is beingpresented using advanced Metal Proximity Sensor and Bluetooth module.
- The opening/closing of room door is being detected prior to turn the light, fan and computerON/OFF in the class room using the sensors.
- Closing of the room door will automatically turns off all the devices connected in the smartclass, this will reduce the power wastage and misbehavior of unauthorized persons.
- Existing classroom is being automated as BLE Smart Classroom.

Technology Adapted

- An Proximity Metal sensor is being used to make sure that the class room door is open or not, after typing a passcode in the mobile application.
- If the Door is closed after opened, then fan and light will definitely be switched off. Meanwhile the system will get reset and ask passcode again to get permission to control devices.
- Bluetooth module, smart phone application, metal proximity sensor and Loads are being utilised in the smart classroom.
- ▲ Serial Bluetoothmobile application is being used which allows the users to control devices including classroom appliances and sensors using Bluetooth technology.



Fig: Working of BLE Smart Class Room

Working:

Automated Smart Classroom System uses fuzzy based wireless Bluetooth communication to control the functioning of the classroom appliances. Metal Proximity Sensor is being utilized to detect the opening/closing of the door. When an opened door is sensed through a metal proximity sensor, an authorized person can control the classroom appliances using Serial Bluetooth App with a passcode using mobile phone. When the passcode is correct, the classroom appliances such as fan, tube lights and laptop/desktop is being turned ON/OFF by the mobile app. This will reduce the power wastage and misbehavior by the unauthorized persons. When the door is closed will automatically turns off all the devices connected in the smart class room.

Code	Operation		
0	Tube Light-1 ON		
1	Tube Light-1 OFF		
2	Tube Light-2 ON		
3	Tube Light-2 OFF		
4	Fan-1 ON		
5	Fan-1 OFF		
6	Fan-2 ON		
7	Fan-2 OFF		
8	PC ON		
9	PC OFF		

Table: Input Code and the Specific Operation in Smart class room using Serial Bluetooth App

SystemComponents:

- o Metal Proximity Sensor
- o AVR Atmega& Mother board
- o Bluetooth Module
- Relay Board & Loads
- Power supply module
- Software : Serial Bluetooth Application

Deployment & Output



Fig: Proximity Metal Sensor Fixed in Door of Smart Class Room

Deployed System Outcome & Highlights

The main contribution of this system is an innovative approach to automate the smart classroom. The classroom appliances are being effectively controlled with the mobile phone with help of a Sensor in the classroom door. The lights, fans and the personal computer system is being turned ON/OFF using mobile App with Bluetooth module. This will reduce the power wastage and misbehavior by unauthorized persons.

SMART WOMEN SAFETY DRESS

S.RABECCA (164405ER024)

Preamble

India which sees itself as a promising super power and an economic hub can achieve its goal if and only if its large population of women participate in the development process. But women are facing many problems inviting threats to their security. Women are subjected to unethical physical harassment apart from their mental torture. Women safety methods such as various mobile apps have been tried and are being implemented.But the need is a device that can be carried everywhere easily. Smart Women Safety Dress is an innovative idea to protect women in the challenging world. The safety dress works based on the principle of wireless sensor networks. Sensor enabled devices are affixed to the wearing garment. Whenever a danger is sensed in the form of crushing the dress or trying to open the button, immediately an alert will be sent to the concerned care taker/parent in the form of a message and a call.

Objectives Achieved:

Smart women safety dress is being designed as an easy and portable device.

- Whenever a danger is being sensed in the form of crushing the dress or trying to open thebutton, it will immediately sent an alert message and a call to the concerned care taker
- This smart dress provides high security for women to overcome their fear in going out forpersonal and professional reasons.

Smart dress consumes very less power and convenient to wear.

Technology Adapted:

- Smart women safety dress is an automated reliable women security device which consist ofsmart sensors embedded in a wearable dress.
- The device consists of Arduino Nano and GSM module which keeps user under observationat all the time to a remote network.
- The micro-controller will commands the Global System for Mobile (GSM) module fortransmitting the alert through SMS and a phone call to the concerned care taker/parent.

Working:

Smart women safety dress is an idea designed as one such device which can be attached to the clothing. It will be in the form of a button which can be attachable to the clothing. This button

will be connected to the system which has the GSM modem which provides link to a remote network. When someone trying to open the buttons fixed in the smart dress will immediately send a SMS alert and also a call to the concerned care taker/parent through the GSM module.

The following steps define the working of the device:

1. The system is turned ON when the buttons in the smart dress is opened.

2. Buttonone triggers aArduino nano microcontroller that activates the GSM module and Alert SMS is being sent to concerned caretaker/parent.

3. When the second button is touched, it will activates the GSM module which will send an Alert SMS and a phone call to concerned caretaker/parent phone number.



Fig: Working of Smart Women Safety Dress

Hardware Components:

▲urdino Nano – Mother BoardTool:

• Arduino IDE

GSM Module

Operating Voltage - 5V DC, 1 Amps

Deployment and Output:



Fig: Smart Women Safety Dress Device

Sil airtel Volte	17:42	I ★ 68% ■
< Messages	Vagika +917200553736	Info
Deep Troul Please Sav	ble ve Me!!!	
Deep Troul Please Sav	ble ve Me!!!	
Symptoms I am Safe!!	Of Trouble	
Deep Troul Please Sav	ble ve Me!!!	
Deep Troul Please Sav	ble ve Me!!!	
+ Text Mes		Send

Fig: SMS Alert from Smart Women Safety Dress

Deployed System Outcome & Highlights

- Smart Women Safety Dressis being designed keeping in mind the increasing violence againstwomen in distress situations and to help them instantly.
- **I**t is being developed with an idea to make the security device wearable with comfort. The
- smartsensor enabled device will sendAlert message and a call automatically to the concerned persons.
- This smart dress will help women to move freely wherever they want and will give alert totheir caretakers in an emergency situation.

SMARTBIN FOR SMART CITY

J.Michael Antony Sylvia (PHDCS19F633)

Preamble

Theaccumulation of waste carries serious consequences, physical and fiscal, for cities around the world. By 2100, it is estimated that the growing global urban population will be producing three times as much waste as it does today. With so much of our environment under significant stress in today's world, Smart Bin can provide an immediate and significant solution to sustain a clean and green environment. Automation of solid waste clearance will give a solution to maintain clean, green and a smart city. Smart bin worksbased on a Cloud based IoT technology. Minute to minute data related to the level of solid waste is updated in the ThingSpeak Cloud platform. When solid waste reaches the maximum level of bin an alert will be sent in the form of call or message to the concerned person in the municipal office with the details of the bin location and identification.

Objectives Achieved:

- Smart bin management systemcandeployed to help the municipality workers to know the loading amount of each garbage bin in a locality or town at all times, to provide a cost-effective and time- saving for truck drivers.
- Real time automated monitoring of the waste and coordinating the overall collection cycle using IoT (Internet of Things) is being facilitated.
- Intelligent compaction of waste is being achieved by monitoring the smart bin fill level using smart sensors.

Waste bin fill level is being monitored using ultrasonic sensors.

- Prediction of maximum or marked levels of bins will send a notification to concerned persons to clear the bins in due time.
- Smart Bin management process optimizes management, resources and costs.

Technology Adapted:

Cloud enabled IoT technology based **Smart Bin** for **Smart City** has been implemented toprovide smart services in managing/clean waste at different locations.

- SmartBins are being connected with ThinkSpeakcloud platform using wifi/cellular connectivity over internet.
- Aultrasonic sensing unit keeps detecting and updating the level of waste minute to minute in a cloud platform. When the solid waste reaches the maximum marked level of the bin, intimation through SMS and a call is sent to the municipality workers to empty the bin.
- Real time data is being notified using sensors and updated in the cloud platform

System Components:

▲Mica IoT Processor with ESP8266 Wi-Fi Ultrasonic

- Sensor For distance measurementGSM modem.
- •

Working:

Smart Bin is being connected in internet using Wi-Fi. The level of waste filled in the bin is being detected by the ultrasonic sensor and the information is sent to the cloud platform continuously. When the bin is half full the SMS is sent to the concerned official. When the bin reaches the maximum marked level, the SMS and a call will be sent to the concerned person and automated arrangement to clear the smart bin are done. The waste level in the smart bin is being updated in the ThinkSpeak Cloud platform.


Smart bin Management System

Deployment &Output:



Fig: Smart Bin



Fig: Smart Bin - SMS Alert



Fig: ThinkSpeak Cloud Platform showing the level of waste in the Smart Bin

Deployed System Outcome & Highlights

- 1. The SmartBin Management system enables the efficiency of waste bin collection activities and cost reduction.
- 2. Remote real time monitoring smart bin is being deployed using IoT/Sensors which performs reliable and efficient waste management.
- 3. Wireless Communication infrastructure for Smart Waste Management system is being facilitated.
- 4. Smart wastebin monitoring and analysis is being enabled using smart sensors.
- 5. Real time data is being notified using smart sensors and alert message is sentto the concerned official in the municipal office with the details of the bin location and identification.



SMARTANT TECHNOLOGIES PVT LTD CIN U723007N2015PTC103132 GST 33AAWC54766J1ZL



MEMORANDUM OF UNDERSTANDING

BETWEEN

SmartAnt Technologies Pvt. Ltd.

AND

Mother Teresa Women's University, Kodaikanal

This Memorandum of Understanding (hereinafter referred to as this "MoU") is made effective on from 01.03.2017

By And Between

SmartAnt technologies Pvt. Ltd., N0:5/9, 1st Floor, Phase-2, 3rd street, Gill Nagar, Choolaimedu, Chennai (herein referred to as STPL which expression where the context admits shall include its successors in interest and permitted assigns) of the FIRST PART.

AND

Mother Teresa Women's University (hereinafter referred to as "MTWU" which expression, where the context admits shall include its successors in interest and permitted assigns) of the SECOND PART.

WHERE AS

Smart Ant Technologies Pvt. Ltd. focuses on new way of business, thereby combining IT innovations and adoption while leveraging an organization's current assets. STPL team is committed to provide IT Services with: Quality, Security, Technology, Innovation, Support

QUALITY

STPL's emphasis is to deliver best quality in every project by maintaining global business standards. STPL is a unique combination of specialist designers and technical experts coming together to provide simple solutions for users' needs.

TECHNOLOGY, INNOVATION & SUPPORT

Technology leadership is the motto of STPL that enables STPL to deliver solutions with decisive competitive advantage. SmartAnt, today, is a new generation framework of technology innovators to accelerate growth. Innovation is emphasized in each project. STPL's structured team works with a methodology and knowledge to innovate and deliver excellent services. STPL is committed to provide development and tech-support teams to software and high-tech companies

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with the required infrastructure at a competitive rate from its State of the art development center. STPL provides a wide range of profiles including project managers, project leads, Technical leads and Software Engineers. On the support side, STPL provideS Team leads, Senior, and Junior Technical support personnel on a 24 x 7 basis.

1. Mother Teresa Women's University (MTWU), the only women's University of Tamil Nadu State Government is situated at Attuvampatti, Kodaikanal and was stated in 1984 by the enactment of Tamil Nadu Act 15. The foundation stone was laid by the Nobel Laureats Mother Teresa. The University's Vision is to "Empower Women through Education". Mother Teresa women's university strives for quality education, academic excellence, innovative research and consultancy in the disciplines of Arts, Science and Management, thereby empowering the stakeholders to compete globally. Their mission is to achieve the goals by continuously upgrading the curriculum catering to the social needs and industrial requirements, by conducting research in intra, inter, multi and transdisciplinary areas, and by imparting quality education for enhancing knowledge, employability skills and entrepreneurship capabilities through start-up environment.

The purpose of this Memorandum of Understanding is to provide a framework for the proposed Collaboration

The Memorandum sets out the mutual agreement to the terms and conditions as set out herein, initially for a period of five (5) years starting from the effective date and extendable further on mutually agreeable term period.

The parties may carry out Start-Up activities and processes under this agreement as mentioned in this MoU.

1. Technical Start-Up activities

A. MTWU and STPL will jointly undertake the following Start-Up activities during the next one year at MTWU campus.

1		
SI.No.	Events / Activities	-
A.1	Two Start-Up Ecosystem	
0525500	Orientation Programme	
A.2	Two Ideation Camp	- 3
A.3	Four Innovation Challenge	
A.4	Pre-Incubation Programme	
A.5	Hackathons	
A.6	Prototyping	
A.7	Facilitate IPR	- 8

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SMARTANT TECHNOLOGIES PVT LTD



B. STPL along with MTWU will undertake Pre-Incubation Program for Interested Students

SI, No.	Start-Up Activities/Processes		
B.1	Ideation & Innovation		
B.2	Prototyping		
B.3	Access to IPR Services(for those which have commercial Value)		
B.4	Access to Co- Working Space		
B.5	Access to Computer labs		
B.6	Access to Innovation Facilitation Center		

SLNO.	Start
B.7	Company/Start-Up Registration Services
B.8	Orientation to Legal/Financial/licensing Requirements
B.9	Access to mentoring
B.10	Facilitate lab Testing of products
B.11	Orientation to Marketing processes
B.12	Guide Business plan Development
B.13	Preparing for Pitch in for Investments
B.14	Any for services that deemed necessary for the startup that MTWU & KRISHTEC can undertake

II. Space & Basic Infrastructure

STPL shall provide space, facilities and basic infrastructure or pre-incubates as per the prescribed norms and rates at STPL campus. STPL shall extend its office space and facilities for undertaking start-up processes, training, exhibition, and not for any other reasons.

MTWU shall provide the necessary space, manpower assistance an necessary facilities to conduct the programs mentioned above. It also shall extend its labs and workshop for the students to develop their products.

III. Financial Implications

STPL shall bear expenses for pre-incubation program organized at STPL campus. The IPR and prototyping expenses for product protection and development for Start-Up (for those which have commercial value) shall be borne by STPL as per the STPL norms.





The logistics and material expenses related to students for innovation and pre-incubation processes shall be borne by MTWU for organizing & facilitating Start-up ecosystem, two orientation programs and two "Ideation camps ", MTWU will pay remuneration to the facilitators as per MTWU or as mutually agreeable norms. The IPR and prototyping expenses for product protection an development by Pre Incubates (for the academic purpose) shall be borne by MTWU

Both MTWU and STPL shall explore and jointly organize Start-Up events and training programs and revenue generated can be utilized on the mutually agreeable basis for developing the start-up eco-system.

IV. Consultancy

Time to time involvement of external expert for technical guidance and marketing expertise shall be decided by both the parties on mutually agreeable terms. The financial implications for this will be at the scope of STPL and MTWU.

V. Intellectual Property

Background IP: The parties recognize and acknowledge that the ownership of the background IP belonging to each party will exclusively belong to that party.

Any intellectual property arising out of the joint effort of the parties will be jointly shared. However, the ownership of such IP (which is for the academic purpose) shall rest with the inventors (Students) and MTWU. The percentage of royalty/revenue from the patented academic product/technology/ shall be shared between the inventors (students) and MTWU.

The ownership of the IP (for those which have commercial value) shall be with the inventors (students) for which MTWU shall issue a NOC. STPL shall be honoured for its services towards IP development by extending mutually agreeable royalty from the revenues from the invention, subject to maximum of 25% of total revenue.

If MTWU would like to be part of the IPR registration process (for those which have commercial value), the cost towards patenting process (such as application, examination, registration and others) shall be borne by both the parties on 50:50 basis per patent. Then, royalty from the



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revenues generated by the Start-up from the invention (subject to a maximum 25%) be shared jointly by KRISHTEC and MTWU on a mutually agreeable basis.

If the inventors (students) would like to access IPR, they would have to submit NOC from MTWU, then STPL will support them in the registration process and the cost towards patenting process (such as application, examination, registration and others) shall be borne by inventors (students). Since MTWU and STPL are not meeting full or part cost of patenting the product or technology. MTWU and STPL will not be able to get any royalty from such patented products/technologies.

No commercial use or sub-license is permitted without all the parties' written consent.

For filings outside of India, parties will enter into a separate agreement.

Innovation for IPR filing will be screened and selected based on the recommendation of committees at MTWU and further approval by STPL committee constituted to review the patentability of the submitted applications.

VI. Resolution of Disputes and Governing Law:

In the event of any dispute between MTWU and STPL, written inputs regarding the dispute shall be provided to the other party. Such dispute or differences shall be resolved amicably by mediation and discussion between the Parties. If not, amicably settled within sixty (60) days of the dispute or claim arising, such dispute or claim shall be decided by a sole arbitrator appointed mutually in accordance with the provisions of the Indian Arbitration & Conciliation Act, 1996 (as amended). This Agreement shall be governed by Indian laws and the parties agree to submit to the exclusive jurisdiction of the courts at Dindigul.

VII. Confidentiality

 During and for a period of five years from the date of termination of this Agreement, each party agrees to consider as confidential, all information disclosed by the other party in written or tangible form.





- The obligations above shall not extend to any confidential information for which the receiving party can prove that this information:
 - * is in the public domain at the time of disclosure or comes within the public domain without fault of the receiving party.
 - * is already known or become known to the receiving party
 - * is received from a third party having no obligations of confidentiality to the disclosing party.
 - * is independently developed by the receiving party; or
 - * is required to be disclosed by law or court order.

VIII. Force Majeure

In the event that either party is delayed or impeded in the performance of its obligations here under by any cause beyond its reasonable control, it shall be entitled to such extension of time for such performance as may be fair and reasonable in all the circumstances.

IX. Amendments to the MoU

Changes and/or deviations are likely to happen both in context and extent of the subject maters covered under this MoU. Any modifications to the agreement shall be considered only when accepted mutually in writing by both parties by signing an amendment to the agreement.

X. Terms and Termination

This MoU, unless extended by mutual written agreement of the parties, shall expire 5 years after the effective date specified in the opening paragraph. This MoU may be amended or terminated or renewed earlier by mutual written agreement of the parties at any time. The agreement may not be assigned or transferred without the prior written consent of the other party to this agreement. This MoU is executed in duplicate with each copy being an official version of the Agreement and having equal legal validity. This MoU constitutes the entire and only MoU between the parties, and all prior negotiations, representations, agreements, and understanding are hereby superseded.



SMARTANT TECHNOLOGIES PVT LTD CIN U72500TN2015PTC103132 GST 33AAWCS4766J1ZL



By SIGNING BELOW, the parties, acting by their duly authorized officers, have caused this Memorandum of Understanding to be executed, effective from 01.03.2017.

On behalf of STPL

Name: J Saravanan

Title: CEO

Date: 01.03.2017

Witness Name: Nagaraj/P

Title:HR

Date: 01.03.2017

Name: R Somasundaram

Title: Technical Head

Date: 01.03.2017

WU, Kodaikanae gistrar, On behalf of MT Mother Teresa Women's University, Kodaikanal. Name: Dr.N.Geetha

Title: Registrar I/c

Date: 1.03.2017

Witness

Name:

Title:

Dr. S. Vimala Associate Professor 1.3.2017 M.H.a.L. Dr. Hadhukar Hemamalini Assistant profusor Date:

1.3.2017

CHHOLO,

CHENTIAL

Title: Date:

Name:



MEMORANDUM OF UNDERSTANDING

BETWEEN

PHEONIX SOFTECH, MADURAI

AND

MOTHER TERESA WOMEN'S UNIVERSITY, KODAIKANAL

This Memorandum of Understanding (hereinafter referred to as this "MoU") is made effective on from 5.01.2018

By And Between

Phoenix Softech, No.266, 2nd Floor, Good Shed Street, Madurai – 625001, A Pioneer in IT Solutions, (which expression, where the context admits shall include its successors in interest and permitted assigns) of the FIRST PART.

AND

Mother Teresa Women's University (hereinafter referred to as "MTWU" which expression, where the context admits shall include its successors in interest and permitted assigns) of the SECOND PART.

WHERE AS

- Phoenix Softech is a pioneer in the area of IT solutions. It offers a wide spectrum of services including Website Design, development, Web application development, Search Engine Optimization and Vehicle Tracking System. The company is 100 percent customer-driven and fully committed to offer advanced IT expertise and cutting-edge software solutions. It is engaged in
- a. Incubating Technology based novel ideas.
- b. Promoting interaction with and resourcing technology and expertise from the incubates. Creating Jobs in the rural sector through sector through enterprise and entrepreneurship development.
- 2. Mother Teresa Women's University (MTWU), the only women's University of Tamil Nadu State Government is situated at Attuvampatti, Kodaikanal and was stated in 1984 by the enactment of Tamil Nadu Act 15. The foundation stone was laid by the Nobel Laureats Mother Teresa. The University's Vision is to "Empower Women through Education". Mother Teresa women's university strives for quality education, academic excellence, innovative research and consultancy in the disciplines of Arts, Science and Management, thereby empowering the stakeholders to complete globally. Their mission is to achieve the goals by continuously upgrading

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the curriculum catering to the social needs and industrial requirements, by conducting research in intra, inter, multi and trans-disciplinary areas, and by imparting quality education for enhancing knowledge, employability skills and entrepreneurship capabilities through start-up environment.

The purpose of this Memorandum of Understanding is to provide a framework for the proposed Collaboration

The Memorandum sets out the mutual agreement to the terms and conditions as set out herein, initially for a period of three (03) years starting from the effective date and extendable further on mutually agreeable term period.

The parties may carry out Start-Up activities and processes under this agreement as mentioned in this MoU.

1. Technical Start-Up activities

A. MTWU and PHEONIX will jointly undertake the following Start-Up activities during the next one year at MTWU campus.

Events & Activities for developing Start-Up Ecosystem (Innovation, Prototyping, IPR)		
SLNo.	Events / Activities	Remarks
A.1	Two Start-Up Ecosystem Orientation Programme	1 st during July to Sep.'2019 & 2 ^{sd} during Oct.2019 to Feb.'2020
A.2	Two Ideation Camp	1 st during July-Sep. 2019 and 2 st during Oct-Feb-2020
A.3	Four Innovation Challenge	One in Each Quarter
A.4	Pre-Incubation Programme	For Interested Students
A.5	Hackathons	One in Each Quarter
A.6	Prototyping	Support for those have a market opportunity
A.7	Facilitate IPR	Support for those have a market opportunity

Years Two and Three plans can be evolved after reviewing the progress in June, 2019.



B. PHEONIX along with MTWU will undertake Pre-Incubation Program for Interested Students

SI, No.	Start-Up Activities/Processes	
B.1	Ideation & Innovation	
B.2	Prototyping	
B.3	Access to IPR Services(for those which have commercial Value)	
B.4	Access to Co- Working Space	
B.5	Access to Computer labs	
B.6	Access to Innovation Facilitation Center	

SLNO.	Start
B.7	Company/Start-Up Registration Services
B.8	Orientation to Legal/Financial/licensing Requirements
B.9	Access to mentoring
B.10	Facilitate lab Testing of products
B.11	Orientation to Marketing processes
B.12	Guide Business plan Development
B.13	Preparing for Pitch in for Investments
B.14	Any for services that deemed necessary for the startup that& can undertake

II. Space & Basic Infrastructure

PHEONIX shall provide space, facilities and basic infrastructure or pre-incubates as per the prescribed norms and rates at PHEONIX campus. PHEONIX shall extend its office space and facilities for undertaking start-up processes, training, exhibition, and not for any other reasons.

MTWU shall provide the necessary space, manpower assistance an necessary facilities to conduct the programs mentioned above. It also shall extend its labs and workshop for the students to develop their products.

III. Financial Implications

PHEONIX shall bear expenses for pre-incubation program organized at PHEONIX campus. The IPR and prototyping expenses for product protection and development for Start-Up(for those which have commercial value) shall be borne by PHEONIX as per the PHEONIX norms.

The logistics and material expenses related to students for innovation and pre-incubation processes shall be borne by MTWU for organizing & facilitating Start-up ecosystem, two orientation programs and two "Ideation camps", MTWU will pay remuneration to the

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facilitators as per MTWU or as mutually agreeable norms. The IPR and prototyping expenses for product protection an development by Pre Incubatees (for the academic purpose) shall be borne by MTWU

Both MTWU and PHEONIX shall explore and jointly organize Start-Up events and training programs and revenue generated can be utilized on the mutually agreeable basis for developing the start-up eco-system.

For other events organized a MTWU, both the parties shall organize on mutually agreeable basis.

IV. Consultancy

Time to time involvement of external expert for technical guidance and marketing expertise shall be decided by both the parties on mutually agreeable terms. The financial implications for this will be at the scope of PHEONIX and MTWU.

V. Intellectual Property

Background IP: The parties recognize and acknowledge that the ownership of the background IP belonging to each party will exclusively belong to that party.

Any intellectual property arising out of the joint effort of the parties will be jointly shared. However, the ownership of such IP(which is for the academic purpose) shall rest with the inventors (Students) and MTWU. The percentage of royalty/revenue from the patented academic product/technology/ shall be shared between the inventors (students) and MTWU.

The ownership of the IP (for those which have commercial value) shall be with the inventors (students) for which MTWU shall issue a NOC. PHEONIX shall be honoured for its services towards IP development by extending mutually agreeable royalty from the revenues from the invention, subject to maximum of 25% of total revenue.

If MTWU would like to be part of the IPR registration process (for those which have commercial value), the cost towards patenting process (such as application, examination, registration and others) shall be borne by both the parties on 50:50 basis, subject to a maximum of Rs. 40,000 per patent will be spent by PHEONIX and Rs. 40,000/- by MTWU. Then, royalty from the revenues generated by the Start-up from the invention (subject to a maximum 25%) be shared jointly by PHEONIX and MTWU on a mutually agreeable basis.

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No commercial use or sub-license is permitted without all the party's written consent.

For fillings outside of India, parties will enter into a separate agreement.

Innovation for IPR filling will be screened and selected based on the recommendation of committees at MTWU and further approval by PHEONIX committee constituted to review the patentability of the submitted applications.

VI. Resolution of Disputes and Governing Law:

In the event of any dispute between MTWU and PHEONIX, written inputs regarding the dispute shall be provided to the other party. Such dispute or differences shall be resolved amicably by mediation and discussion between the Parties. If not, amicably settled within sixty (60) days of the dispute or claim arising, such dispute or claim shall be decided by a sole arbitrator appointed mutually in accordance with the provisions of the Indian Arbitration & Conciliation Act, 1996 (as amended). This Agreement shall be governed by Indian laws and the parties agree to submit to the exclusive jurisdiction of the courts at Dindigul.

VII. Confidentiality

- During and for a period of three years from the date of termination of this Agreement, each party agrees to consider as confidential all information disclosed by the other party in written or tangible form or, if orally disclosed confirmed in writing within thirty days of disclosure and identified as confidential by the disclosing party.
- The obligations above shall not extend to any confidential information for which the receiving party can prove that this information:

* is in the public domain at the time of disclosure or comes within the public domain without fault of the receiving party.



* is already known or become known to the receiving party

* is received from a third party having no obligations of confidentiality to the disclosing party.

- * is independently developed by the receiving party; or
- * is required to be disclosed by law or court order.

VIII. Force Majeure

In the event that either party is delayed or impeded in the performance of its obligations here under by any cause beyond its reasonable control, it shall be entitled to such extension of time for such performance as may be fair and reasonable in all the circumstances.

IX. Amendments to the MoU

Changes and/or deviations are likely to happen both in context and extent of the subject maters covered under this MoU. Any modifications to the agreement shall be considered only when accepted mutually in writing by both parties by signing an amendment to the agreement.



X. Terms and Termination

This MoU, unless extended by mutual written agreement of the parties, shall expire 3 years after the effective date specified in the opening paragraph. This MoU may be amended or terminated or renewed earlier by mutual written agreement of the parties at any time. The agreement may not be assigned or transferred without the prior written consent of the other party to this agreement. This MoU is executed in duplicate with each copy being an official version of the Agreement and having equal legal validity. This MoU constitutes the entire and only MoU between the parties, and all prior negotiations, representations, agreements, and understanding are hereby superseded.

By SIGNING BELOW, the parties, acting by their duly authorized officers, have caused this Memorandum of Understanding to be executed, effective from 05.01.2018.

Name: S. SUKUMAR Title: MANAGER Date: 05.01.2018.

STregoralum Witness

Name: S. THANGAPANDIAN

- Title: ASST. MANAGER
- Date: 05.01.2018.

K. Sumate Name: K. SUMATHI Title: CUSTOMER CARE

Date: 05.01.2018.

alf of MTWU, Ko

Name: Dr.A. Suganthi Mother Teress Womea's Univ Koasisanal.

Date: 15-1-2018

Witness Lale

Name: Dr. S. Vimala Title: Associate Professor

Date: 15-1-2.018

Nume: Dr. Madhukar Hemamali. Tille: Assistant professor

Date: 15.1.2018



MEMORANDUM OF UNDERSTANDING

BETWEEN

EMBUZZ TECHNOLOGIES Pvt. Ltd.

AND

MOTHER TERESA WOMEN'S UNIVERSITY, KODAIKANAL

This Memorandum of Understanding (hereinafter referred to as this "MoU") is made effective on from 26.7.2017.

By And Between

EMBUZZ Technologies Pvt. Ltd., 279/1 Maruthu Pandiar Nagar 4th Street, Sourashtra Texhers Colony, Anupanady Road, Madurai – 625 009A Pioneer in IT Solutions, (which expression, where the context admits shall include its successors in interest and permitted assigns) of the FIRST PART.

AND

Mother Teresa Women's University (hereinafter referred to as "MTWU" which expression, where the context admits shall include its successors in interest and permitted assigns) of the SECOND PART.

WHERE AS

- Embuzz Technologies Private Limited is a Private incorporated on 29 May 2014. It is classified as Nongovt company and is registered at Registrar of Companies, Chennai. Its authorized share capital is Rs. 100,000 and its paid up capital is Rs. 100,000. Embuzz Technologies Private Limited's Annual General Meeting (AGM) was last held on 30 September 2019 and as per records from Ministry of Corporate Affairs (MCA), its balance sheet was last filed on 31 March 2019. Directors of Embuzz Technologies Private Limited are Meenakshisundaram Amarnathkarthic and Pandiselvi Kandhasamynadar. Embuzz Technologies Private Limited's Corporate Identification Number is (CIN) U72900TN2014PTC095964 and its registration number is 95964.Its Email address is M.AMARNATHKARTHIC@GMAIL.COM and its registered address is 279/1, SOURASHTRA TEACHERS COLONY MARUDHUPANDIYAN NAGAR, 4TH STREET, MADURAI Madurai TN 625009.
- 2. Mother Teresa Women's University (MTWU), the only women's University of Tamil Nadu State Government is situated at Attuvampatti, Kodaikanal and was stated in 1984 by the enactment of Tamil Nadu Act 15. The foundation stone was laid by the Nobel Laureats Mother Teresa. The University's Vision is to "Empower Women through

Head Office:							
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Education". Mother Teresa women's university strives for quality education, academic excellence, innovative research and consultancy in the disciplines of Arts, Science and Management, thereby empowering the stakeholders to compete globally. Their mission is to achieve the goals by continuously upgrading the curriculum catering to the social needs and industrial requirements, by conducting research in intra, inter, multi and trans-disciplinary areas, and by imparting quality education for enhancing knowledge, employability skills and entrepreneurship capabilities through start-up environment.

The purpose of this Memorandum of Understanding is to provide a framework for the proposed Collaboration

The Memorandum sets out the mutual agreement to the terms and conditions as set out herein, initially for a period of five (5) years starting from the effective date and extendable further on mutually agreeable term period.

The parties may carry out Start-Up activities and processes under this agreement as mentioned in this MoU.

- 1. Technical Start-Up activities
 - A. MTWU and EMBUZZ will jointly undertake the following Start-Up activities during the next one year at MTWU campus.

Sl.No.	Events / Activities
A.1	Two Start-Up Ecosystem Orientation
	Programme
A.2	Two Ideation Camp
A.3	Four Innovation Challenge
A.4	Pre-Incubation Programme
A.5	Hackathons
A.6	Prototyping
A.7	Facilitate IPR

A. EMBUZZ along with MTWU will undertake Pre-Incubation Program for Interested Students

SI. No.	Start-Up Activities/Processes
B.1	Ideation & Innovation
B.2	Prototyping
В.3	Access to IPR Services(for those which have commercial Value)
B.4	Access to Co- Working Space
В.5	Access to Computer labs
B.6	Access to Innovation Facilitation Center

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SI.NO.	Start
B.7	Company/Start-Up Registration Services
B.8	Orientation to Legal/Financial/licensing Requirements
B.9	Access to mentoring
B.10	Facilitate lab Testing of products
B.11	Orientation to Marketing processes
B.12	Guide Business plan Development
B.13	Preparing for Pitch in for Investments
B.14	Any for services that deemed necessary for the startup that MTWU & KRISHTEC can
	undertake

II. Space & Basic Infrastructure

EMBUZZ shall provide space, facilities and basic infrastructure or pre-incubates as per the prescribed norms and rates at EMBUZZ campus. EMBUZZ shall extend its office space and facilities for undertaking start-up processes, training, exhibition, and not for any other reasons.

MTWU shall provide the necessary space, manpower assistance an necessary facilities to conduct the programs mentioned above. It also shall extend its labs and workshop for the students to develop their products.

III. Financial Implications

EMBUZZ shall bear expenses for pre-incubation program organized at EMBUZZ campus. The IPR and prototyping expenses for product protection and development for Start-Up (for those which have commercial value) shall be borne by EMBUZZ as per the EMBUZZ norms.

The logistics and material expenses related to students for innovation and pre-incubation processes shall be borne by MTWU for organizing & facilitating Start-up ecosystem, two orientation programs and two "Ideation camps", MTWU will pay remuneration to the facilitators as per MTWU or as mutually agreeable norms. The IPR and prototyping expenses for product protection an development by Pre Incubates (for the academic purpose) shall be borne by MTWU

Both MTWU and EMBUZZ shall explore and jointly organize Start-Up events and training programs and revenue generated can be utilized on the mutually agreeable basis for developing the start-up eco-system.

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IV. Consultancy

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The ownership of the IP (for those which have commercial value) shall be with the inventors (students) for which MTWU shall issue a NOC. EMBUZZ shall be honoured for its services towards IP development by extending mutually agreeable royalty from the revenues from the invention, subject to maximum of 25% of total revenue.

If MTWU would like to be part of the IPR registration process (for those which have commercial value), the cost towards patenting process (such as application, examination, registration and others) shall be borne by both the parties on 50:50 basis per patent. Then, royalty from the revenues generated by the Start-up from the invention (subject to a maximum 25%) be shared jointly by KRISHTEC and MTWU on a mutually agreeable basis.

If the inventors (students) would like to access IPR, they would have to submit NOC from MTWU, then EMBUZZ will support them in the registration process and the cost towards patenting process (such as application, examination, registration and others) shall be borne by inventors (students). Since MTWU and EMBUZZ are not meeting full or part cost of patenting the product or technology. MTWU and EMBUZZ will not be able to get any royalty from such patented products/technologies.

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- * is independently developed by the receiving party; or
- * is required to be disclosed by law or court order.

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Changes and/or deviations are likely to happen both in context and extent of the subject maters covered under this MoU. Any modifications to the agreement shall be considered only when accepted mutually in writing by both parties by signing an amendment to the agreement.

X. Terms and Termination

This MoU, unless extended by mutual written agreement of the parties, shall expire 5 years after the effective date specified in the opening paragraph. This MoU may be amended or terminated or renewed earlier by mutual written agreement of the parties at any time. The agreement may not be assigned or transferred without the prior written consent of the other party to this agreement. This MoU is executed in duplicate with each copy being an official version of the Agreement and having equal legal validity. This MoU constitutes the entire and only MoU between the parties, and all prior negotiations, representations, agreements, and understanding are hereby superseded.

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By SIGNING BELOW, the parties, acting by their duly authorized officers, have caused this Memorandum of Understanding to be executed, effective from 26.07.2017.

On behalf of EMBUZZ

Name: M.Anantha karthick

Title: Director

Date: 20.2.2018

I da so

REGISTRAR, DTHER TERESA WOMEN'S UNIVERSITY, KODAIKANAL.

On behalf of MTWU, Kodaikanal

Name: Dr.C.Hilda Devi

Title: Registrar i/c

Date: 20.2.2018

Witness

Name: N.Aramuthan

Title: Asst. Manager

Date: 20.2.2018

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Name: A Dr. g. Vinalg Title: Accociate Prof. g Date: 20.2.2018 Coup. Science M. Handin Name: M. Hanahin Title: Assistant profusor

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CERTIFICATE OF APPRECIATION

This is to certify that the following students have developed software products based on latest technologies by being incubated at Mother Teresa Women's University Incubation and Technology Centre. These products would then be commercialized by improvising them as per Industry Standards.

- 1. Smartbin for Smart City by J.Michael Antony Sylvia, Ph.D. Scholar
- 2. Gesture Controlled Device for Intellectually/Physically Challenged by Ms.R.P.Archita ofIII MCA (Reg. No. 194405ER005)
- 3. Smart Classroom Automation by A.Athisakthi, PHD2014CSF253