20 MARCH 2015

DEPARTMENT OF

ELECTRONICS AND

COMMUNICATON

ENGINEERING

TECSA **PROUDLY PRESENTS**

CORICS 2K15

volume *3*

3RD National Level Technical Symposium

FROM

PATRON'S

DESK

Mr.Adhi Maran
Chairman

I am happy that TECSA the association of the ece department of the college is bringing out a nice magazine in connection with their technical symposium   corics-2k15 on 20th March 2015.I wish the faculty and students of the   department all successs in their efforts.

I compliment the staff and students of our ECE Department on their enthusiastic effort in organizing a Symposium corics-2015 and in also coming up with their magazine on the occasion.

Mrs.Sujatha Maran
CEO

Prof.A.Devaraju
Principal

The efforts of the faculty and students of ECE Department in conducting CORICS-2015 and releasing their department magazine on 20.03.2015 are really landadle. I wish them great success in their endeavours.

All good wishes for the success of the Technical Symposium organised by the Students and Faculty of the Electronics and Communication Engineering department on 20-03-2015.

Prof. C. Sudhakar
Faculty Mentor

our motto
EDUCATION REACH THE UNREACH

ABOUT ACET

Adhi College of Engineering & Technology was established in the year 2008-2009 in commemoration of Thiru. Munu Adhi former speaker of the Tamilnadu state assembly and founder of "Chandra Munu Adhi" educational trust as a non – profitable, non-minority educational institution.The late Thiru. Munu adhi was not only an esteemed standard bearer in public life, as an MLA for four successive terms but also a committed stalwart in the field of education whose credo it was "to reach education even to the unreachable".

The college opens up opportunities for high quality technical education to students of both rural and urban backgrounds from all over tamilnadu and across the country. The college is approved by AICTE, New Delhi and affiliated to Anna University, Chennai.

UG PROGRAMMES

- *Electronics and Communication Engineering*
- *Electrical and Electronics Engineering*
- *Computer Science Engineering*
- *Mechanical Engineering*
- *Civil Engineering*

PG PROGRAMMES

- *Communication Systems*
- *Engineering Design*

ABOUT TECSA

Technology of Electronics and Communication Society of Adhi

The department was established during the inception of the institute in 2008 as the department of Electronics and Communication Engineering (ECE). Since its commencement, the primary objective of the department has been to impart quality education, training and research at the undergraduate, post-graduate and doctoral levels in various areas of Electronics and Communication Engineering with broad emphasis on design aspects of electronic systems.

The department of electronics & communication engineering has always been a trend setter of this institution. Dr. Devaraj (former principal) inaugurated TECSA 2011-2012 on 28-02-2011. Tecsa goal is to represent the ece students and to serve as an link between graduate students, faculty, staff and alumini. This link will be used to give the graduate students in the ECE department an active voice in the department, and to act as an open forum to discuss concerns they have with the department. In addition, through social, professional, and academic events, the TECSA fosters unity among the ECE graduate students, promotes the academic and professional development of the graduate students, and enhances the quality of life of the ECE graduate student.

The objective of the association is
- To provide for all supportive co-curricular training required by students to enhance their curricular performance and keep them updated with recent trends in industry
- To work towards bridging the distance between the textbook taught and practical application in industry.

Department Staff

HOD ECE

MR. SAYED ABDHAHIR V

As a college student, though, you are taking vital steps toward doing something that you really want to do, even if you are not yet sure of what this might be. It is so important to realize the possibilities and the choices in front of you.

MR. GUNASEKARAN K

It is so important to realize the possibilities and the choices in front of you. Instead of wandering from boring job to boring job and living an unfulfilled life

If somebody puts you down or criticizes you, just keep on believing in yourself and turn it into something positive".

MR. DINESH BABU K

Students a world of new ideas and opportunities, undergraduates may feel uncertain and overwhelmed as they compete in demanding academic environments, plan for future career success and learn to manage the responsibilities of independence.

MR. THIRUMURUGAN R

Work hard & Be proud of What you achieve...
Believe in yourself! Have faith in your abilities! Without a humble but reasonable confidence in your own powers you cannot be successful or happy.

Engage Inspire Innovate ---

Students you people are the sum of your action and motivation."The difference between can and cannot are only three letters. Three letters that determine your life's direction."Ever tried. Ever failed. No matter. Try Again. , plan for future career success and learn to manage the responsibilities of independence..

MS.AKALYA DEVI G

"Work hard for what you want because it won't come to you without a fight. You have to be strong and courageous and know that you can do anything you put your mind to. If somebody puts you down or criticizes you, just keep on believing in yourself and turn it into something positive".

MS.SUJATHA R

Your attitude is like a box of crayons that color your world. Constantly color your picture gray, and your picture will always be bleak. Try adding some bright colors to the picture by including humor, and your picture begins to lighten up.

MR.MEENATCHI SUNDARAM M

ECE is an young, large growing Engineering Department, with in focus on research and education for the information technology infrastructure.

It gives me immense pleasure to state that the department of ECE. The ECE has been responsible for standing education in various fields, simply say as without communication fields nothing will happen in the world.

MR.RAJINI KANTH V

----------Always learning

Mr.Benjamin Paul AP/CSE   Mr.P.Chinna Samy AP/EEE   Mr.A.Vamsinagamohan AP/S&H

"Obstacles don't have to stop you. If you run into a wall, don't turn around and give up. Figure out how to climb it, go through it, or work around it."

Ms.U. Bakeyalakshmi AP/S&H   Mr.D.Raji AP/EEE   Mr.J.Antony Vijay AP/CSE

EVENT INCHARGE

S.No	Faculty Name	Event
1	Ms. G. AKALYA DEVI	Paper Presentation
2	Mr. K. DINESH BABU	Project Expo
3	Mr. K.GUNASEKARAN	Technical Quiz
4	Ms. R. SUJATHA	Circuit Debugging
5	Mr. S. BENJAMIN PAUL	Short Film
6	Mr. K. GUNASEKARAN	Gaming
7	Mr. R. THIRUMURUGAN	Treasure Hunt
8	Mr. Y. SAYED ABDHAHIR	Fear Factor
9	Mr. P. CHINNA SAMY	Surprise Event
10	Mr. V.RAJINI KANTH	Food & Hospitality
11	Ms. G. AKALYA DEVI	Reception & Anchor

SYMPOSIUM COMMITEE MEMBERS

S.No	Name	Responsibilities
1	Mr. D. SAI KRISHNA	Secretary
2	Mr. S. SURIYA	Joint Secretary
3	Mr. R. MOHANDASS	President
4	Mr. G. ASHEIK MOHAMMED	Vice president
5	Ms. P. SUBASHINI	Ms President
6	Mr. K. SREEJITH SREEDHAR	Treasurer
7	Mr. B. ATHI CLINTAN	Event Co-Ordinator
8	Mr. K. NAGARAJAN	Proceeding Associate
9	Mr. D. VINOTH	Vice Proceeding Associate
10	Mr. P. SELVA KUMAR	Photographer
11	Mr. M. MUNI KISHORE	Video Grapher
12	Mr. T. NAGAPANDI	Hospitality

Education is the most powerful tool to change the world

SECOND YEAR

Educating today's learners for tomorrow's world

THIRD YEAR

By teaching you will learn and By learning you will teach

FINAL YEAR

Rank Holders

Final Year	Third Year	Second Year	second Year
Divya R 8.23 CGPA	Vaishnavi Aishwarya A 8.3 CGPA	Jaya Chauhan 8.45 CGPA	Yuvashree N 8.7 CGPA

100% Attendance During 2014-2015 Academic Year

II Year (Odd Sem)

1. Asha K
2. Manisha. M
3. Prameela. N

III Year (Odd Sem)

1. Kiruba M
2. Gayathri K S
3. Sandhiya S

IV Year (Odd Sem)

1. Ashiek Mohammed
2. Suriya

II Year (Even Sem)

1. Anbu Devi M
2. Bakyalakshmi D
3. Divya S
4. Jaya Chauhan
5. Kalaivani R
6. Madhavi V
7. Manisha N
8. Mohana P M
9. Naveen Babu J
10. Prethi Ofeeliya C D
11. Rubashri R
12. Sabitha S
13. Saranya S
14. Tamil Bharathi
15. Thirumalai Selvi
16. Vijaya Santhi

III Year (Even Sem)

1. Gayathri K. S
2. Jayashree M
3. Vaishnavi Aishwarya A
4. Vidya
5. Pooja

IV Year (Even Sem)

Divya R

Our BENNY says..........

"All great deeds and all great thoughts have a ridiculous beginning. Great works are often born on a street corner or in a restaurants revolving door".
said by albert camus.

I'm glad that students of ece are making their ridiculous beginning of their career, and im a part of it.

GALLERY

Educational Tour 2014

Robotics workshop 2014

IIT Kara

IV in Sugar Mill

2013 symposium prize distribution

Softskill Development

IV in BSNL

...kphur Robotics Hands on Traninig

Teachers Day Celebration

Staff Tour At Queens Land

2013 educational tour

At Munnar

Inter College Championship

ABSTRACTS

MOBILE COMPANION USING INTELLIGENT VEHICLE MONITORING AND CONTROL

This paper gives the solution for avoiding car boosting and unnecessary accidents occur in the city sides. Here we are going to control the the vehicles aspects by using IVMC(Intelligent Vehicle Monitoring and Control). Here we are going to interface the mobile with the Engine Control Unit(ECU),which will control the whole vehicle like fuel efficiency,anti clock braking system,air conditioning and activating air bags etc. By interfacing like the above we can use the GSM (Global system for Mobile communications) service for tracking the car and for controlling the speed of the car externally.By interfacing like this every vehicle stays connected with the GSM service .This can be applicable for law enforcement agencies which will control car boosting crime. This service can be useful for the man who wants a service care in case of vehicle brake down and also this can be used for requesting of medical care unit incase of accidents, Apart from the above we can control the speed of the car inside the city externally.This wil be useful for our future modern environment. And alsowe have to inform that till now we are using GPS(Global Positioning System) service for this purpose. But instead of GPS we are using GSM service to overcome some of the disadvantages like installation,implementation and cost of the system.

A.Anbuselvi, R.Alageshwari,III ECE,
Thanthai Periiyar Govt Institute Of Technology

A HOSPITAL HEALTHCARE MONITORING SYSTEM USING WIRELESS SENSOR NETWORKS

In a hospital health care monitoring system it is necessary to constantly monitor the patient's physiological parameters. For example a pregnant woman parameters such as blood pressure (BP) and heart rate of the woman and heart rate and movements of fetal to control their health condition. This paper presents a monitoring system that has the capability to monitor physiological parameters from multiple patient bodies. In the proposed system, a coordinator node has attached on patient body to collect all the signals from the wireless sensors and sends them to the base station. The attached sensors on patient's body form a wireless body sensor network (WBSN) and they are able to sense the heart rate, blood pressure and so on. This system can detect the abnormal conditions, issue an alarm to the patient and send a SMS/E-mail to the physician. Also, the proposed system consists of several wireless relay nodes which are responsible for relaying the data sent by the coordinator node and forward them to the base station. The main advantage of this system in comparison to previous systems is to reduce the energy consumption to prolong the network lifetime, speed up and extend the communication coverage to increase the freedom for enhance patient quality of life. We have developed this system in multi-patient healthcare and compared it with the other existing networks based on multi-hop relay node in terms of coverage, energy consumption and speed.

J.Jayasankari, K.Priyadharshni
Sri Manakula Vinayagar Engineering College.

K-ALGORITHM: AN IMPROVED BOOTH'S RECODING FOR OPTIMAL FAULT-TOLERANT REVERSIBLE MULTIPLIER

Fault-tolerant multipliers with low power consumption are the need of today's computing systems and reversible circuits have emerged as an efficient solution for ultra-low power design. In this paper, we propose an improved Booth's recoding algorithm named as K-Algorithm for signed multiplication which reduces the hardware complexity. An efficient multiplier architecture for implementation of K-Algorithm is also proposed. Based on Booth's recoding algorithm, we design 4-bit reversible multipliers, with and without fault-tolerance. We also design a fault-tolerant reversible multiplier using K-Algorithm. We analyze all the three proposed designs using the reversible logic design metrics: quantum cost, number of ancilla bits, number of garbage outputs, and number of gates. We then compare our reversible multiplier designs with the existing designs reported in literature and find that on an average, our K-Algorithm based fault-tolerant design reduces the quantum cost by 33% and other design metrics are also considerably reduced. Overall, the proposed fault-tolerant reversible multiplier based on K-Algorithm is most optimal as compared to all other designs.

KARTHIKA.S ,KAVIPRIYA.A,
V.R.S College Of Engineering And Technology

AN EFFECTIVE APPROACH TO AIRPLANE IJACKPREVENTION AND RESCUE SYSTEM USING MICROCONTROLLER

Airplane Hijack Prevention and Rescue System aims at providing an effective means for deterring aircraft hijack, therebyeliminating any possibility of terrorists using aircraft as a deadly missile. The proposal aids every passenger seat with stress detectorsand a panic switch that is to be pressed in case of emergency. When the panic switches or sensors are activated, the nearest groundstation is alerted with a hijack caution, which has been made possible with the help of the microcontroller ATMEL 89C51. Authoritiesat the base station turn on concealed cameras to confirm the presence of the hijacker. When the presence of hijacker is affirmed, thecabin and the cockpit areas are filled with a sedative gas to put the hijacker out of action before he takes control of the aircraft.Concurrently, manual controls at the cockpit are rendered inoperative. The plane is guided via external remote control at the basestation, using radio waves, satellite GPS, and existing landing aids to the nearest airport by trained pilots at the base station.

J.Gayathiri,
University College of Engineering -Panruti

VOICE BASED E-MAIL CLIENT SERVICE WITHOUT INTERNET

"Email in telephone" is a system which will be developed to receive mail with ordinary telephone. The system will be developed to solve the problems like necessity of owing a PC with net connection or tough job of rushing to browsing centers just to retrieve mails. In this system, a dial-up client will receive through the telephone line and authentication number will obtain from him/her. Using that authentication number the system will get to the inbox of the client. The inbox status will read to the buffer. Using a text to voice interface it is fed through the telephone line to the client. The system is expected to develop for the user to access his/her mail box and will be able to hear mails.

A.Nithya,T.Sherin Rubina,
Thamirabharani Engineering College,Tirunelveli.

BIOMETRIC SECURITY SYSTEM-BASED ON HUMAM ODOUR

Biometrics is the current buzzword in user authentication domain. Finger print and retinal scan, that are examples of biometric systems that are in use today,have the drawback that, they are not fool proof. Recent surveys have revealed the uniqueness of human odour. Human odour will join the Elite list in the near future. The advantage lies in the fact that it is impossible to replicate human odor. This paper deals with the feasiblity of creating a model system that authenticates people based on their body odour. The challenge is in designing a sensor that identifies every human by his scent. An abstract model of a system that implements this sensing and identification has been proposed here. This authentication system is very useful in safeguarding bank vaults and documents of International repercurssions from potentially smart anti-social crooks.

A.Azhagappan, R.Devanathan
IFET College of Engineering.

CACHE IN THE AIR: EXPLOITING CONTENT CACHING AND DELIVERY TECHNIQUES FOR 5G SYSTEMS

The demand for rich multimedia services overmobile networks has been soaring at a high pace over recent years. However, due to the centralized architecture of current cellular networks, the wireless link capacity as well as the bandwidth of the radio access networks and the backhaul network cannot practically cope with the explosive growth in mobile traffic. Recently,we have observed the emergence of promising mobile content caching and delivery techniques, by which popular contents are cached in the intermediate servers .sothat demands from users for the same content can be accommodated easily without duplicate transmissions from remote servers; hence, redundant traffic can be significantly eliminated. In this, we first study techniques related to caching in current mobile networks, and discuss potential techniques for caching in 5G mobile networks, including evolved packet core network caching and radio access network caching. A novel edge caching scheme based on the concept of content-centric networking or information-centric networking is proposed. Using trace-driven simulations, we evaluate the performance of the proposed scheme and validate the various advantages of the utilization of caching content in 5G mobile networks.Furthermore,we conclude the article by exploring new relevant opportunities and challenges.

D.Deborah A.Gulzhanesther
Kings Engineering College.

A NEW DEFECTED GROUND STRUCTURE FOR PROXIMITY COUPLED ANTENNA

The main aim of recent antenna research has been on reducing the size of the antenna and increasing the rejection of unwanted frequencies. The lesser the antenna size, the more area that can be saved, which can be used for other constructive improvements. The higher the stop band attenuation, the better the transmission and reception efficiency. A new Defected Ground Structure (DGS) is proposed in this paper which increases the stop band attenuation. In this paper the proposed DGS is compared with cross shaped, dumbbell shaped and E shaped DGS and shown to have improved performance when compared to the three.

R.ARAVIND , HARI NARAYANAN.M
Jeppiaar engineering college

GESTURE CONTROL RING BASED AUTOMATED WHEELCHAIR

Wheelchair is a replacement for walking but its operation and control requires a lot of strength and physical effort. Though automated wheelchairs which use remotes and smart phones are available, they are expensive, tough to operate and power consuming. This paper is a proposal of a simpler automated wheelchair which can be controlled using a gesture control ring. It consists of a 3 axis accelerometer and Bluetooth wireless technology which enables patients to move their wheelchairs by just moving their fingers. The actuators for this concept are controlled by a microcontroller powering a basic servo motor for directional motion and a pair of DC motors for the wheels. The power supply can be achieved by rechargeable battery which is also charged using the alternator during the motion of the wheels. This concept is more economic than existing systems as it uses basic ready-to-use components that can be attached to any existing wheelchair.

V.SAI CHARAN,
Easwari Engineering College

AN AUTOMATIC DETECTION OF LICENSE PLATE NUMBER USING GENETIC ALGORITHMS

License plates being the unique identity for any registered vehicle, License plate recognition systems have been used to resolve the issue of identification of vehicles. In this paper, a new novel approach is proposed to detect the locations of license plate symbols. Dynamic threshold method is applied to overcome dynamic changes, when converting RGB image to binary. Connected component analysis is used to group the pixels based on pixel connectivity from the scanned image. A scale-invariant geometric relationship matrix is introduced to model the layout of symbols in any license plate. In addition to these techniques, two new crossover operators are introduced, which improves the convergence speed of the system. This system can be useful in video surveillance applications such as intelligent parking, automated toll payment, intelligent surveillance and security enforcement.

Mrs.R.Rajalakshmi, Assistant Prof.Grade I, K.Sowjanya,
M.Rushitha, N.Aishwarya, G.Dhivya,
Panimalar Engineering College, Chennai.

NETWORKING BALLOONS !

At present we seek the service of Internet Service Providers to connect us to the global network. The telephone companies or the telecommunication operators provides this service. This is reachable only to 1/3 of the world's population .The remaining 2/3 are not able to get internet access. In order to provide internet connection to everyone around the globe especially, it is not possible to lay the telecommunication lines all around. Since the developing countries cannot afford such a huge sum of money to lay fiber cables, this will not be the optimal solution. To provide internet access to rural and remote areas, we need a high altitude platform . Google has introduced the new idea of balloon powered internet access. The 'Project loon' is a network of balloons travelling in the stratosphere,which acts as a wireless station, providing internet to the rural and unreachable areas, in a cost effective manner.

Nandh Kishore V Srinivasakannan V,
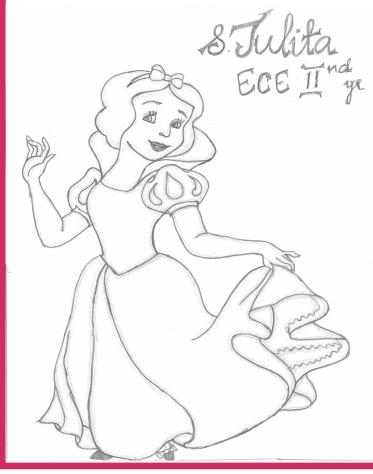St.Joseph's College of Engineering

STUDENT'S paintings
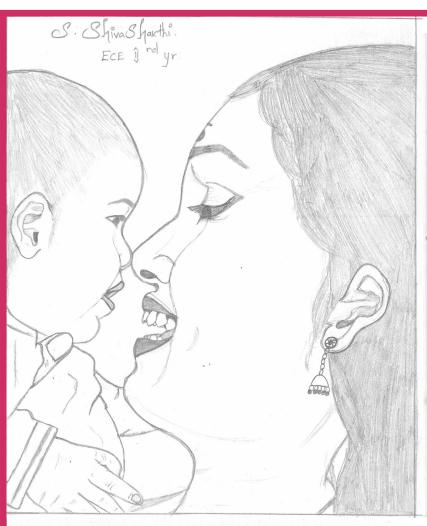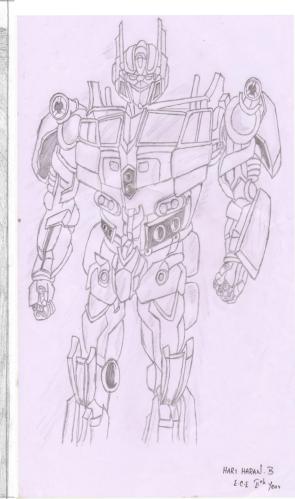

BioDiversity

By
R.Suresh Kumar
ECE-IV Year

Raina 11-11-12

SALEEM AHMED
Final year, E.C.E
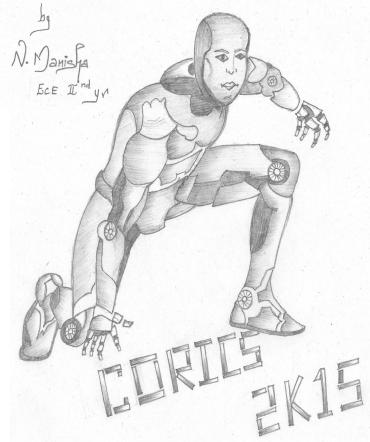
ECE-II year

Mohana. M
ECE sec 40

S. Julita
ECE II nd ye

S. Vanmat
2yr ECE

S. ShivaShakthi.
ECE II nd yr.

HARI HARAN. B
E.C.E II nd year

by
N. Manisha
ECE II nd yr

CORICS
2K15

Art
by
C.D.Preethi Neelija
ECE-II yr

MOHANA-M
ECE-SEC YR.

by
N.2 Suvashree
ECE, II nd yr

E Elect the people through your habit and love

L Load the happiness to them

E Emit the spark from yours as talents
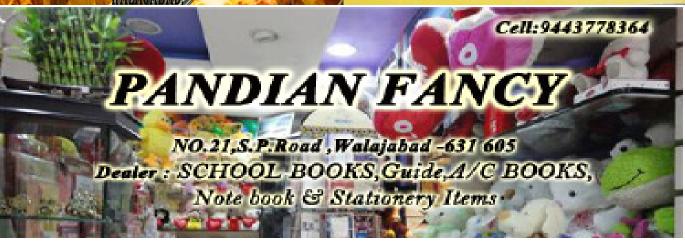
C Collect that and give it to others

T Tackle anything with your bold

R Resist your anger through attitude

O Omit your negative charge

N Nest is your ECE world

I Imagination will get you anywhere

C Creativity is intelligence having fun

S Stepping stone

&

C Charge your strength by updating your knowledge

O Opportunity appears ,don't pull down the shade

M Mine word make as anything yours

U Utilize anything and everything in anywhere

N Noble will prize by your smile

I Intelligence is in your palm like turning pages of book

C Capability will give your hard work

A Accomplishment start with the decision to try

T Transist your attitude to others for making happy

I Improveness can you see in your failure

O Obeying of others to inspire

N Neglect the higher watts as cruel thing

E Expert in anything was once a beginner

N Next world is waiting for your creativity

G Gain more people through your attitude

I Implementation of these make you a hero

N Negligible is your villan of your life

E Erase your past by updating for future

E Elaborate those things up to your life

R Race is your horsepower

I Inspire is your positive charge

N NO is not answer for make anything

G Going to follow these to become a wonderful Engineer, Creator, inspirer......

.........Over all you will become a wonderful human......

Designed By: Mr. Y. Sayed Abdhahir (AP/ECE)

"நம்மிடையே வாழும் மேன்மக்களை நாம் எப்போதுமே உணர்வதில்லை. ஆனால் அவர்கள் போனபிறகு புரிந்துகொள்ள முயற்சிக்கிறோம"

"வளர்ச்சி தேவையா, மரியாதை தேவையா எனும் சூழலில் மனம் எப்போதும் மரியாதையை தான் முதலில் எதிர்பார்க்கிறது. அதனால் தான் மனம் அறிவுரைகளை விட பாராட்டுகளையே பெரிதாக நினைக்கிறது."

ADHI COLLEGE OF ENGINEERING AND TECHNOLOGY

For admissions contact:
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Trust Office: No. 25, Munu Adhi illam, Patel Nagar, 2nd street, Near ESI Hospital, Tambaram, Chennai
Phone: +91-44-27290096, 90940 41754, Web: http://www.adhicollege.com