# DEPARTMENT OF ELECTRONICS AND

COMMUNICATION ENGINEERING



ADHI COLLEGE OF ENGINEERING AND TECHNOLOGY

Walajabad Near Oragadam

# From Patron's desh



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-2k14 on 28th feb 2014. I wish the faculty and students of the department all successs in their efforts.

Adhi maran Chairman

I compliment the staff and students of our ECE Department on their enthusiastic effort in organizing a Symposium corics-2014 and in also coming up with their magazine on the occasion.

Sujatha maran CEO





The efforts of the faculty and students of ECE Department in conducting CORICS-2014 and releasing their department magazine on 28.2.2014 are really landadle. I wish them great success in their endeavours.

Dr.A. Devaraju Principal

All good wishes for the success of the Technical Symposium organised by the Students and Faculty of the electronics and communication engineering department on 28-02-2014.

Prof. C. Sudhakar Mentor



# 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.

The college offers UG programmes of study in the following branches and departments.

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



About Department

The Department of Electronics and Communication Engineering was established in the year 2008. Electronics and Communication Engineering is both a core subject and a swiftly advancing field, with new ideas emerging every day. From mobile phones to remote sensing, there are exciting avenues to explore. With technology becoming all pervasive in everyday life, opportunities for electronic engineers are plenty.

The department is well known for imparting a strong theoretical and practical foundation in the subject. It has well equipped state of art laboratories On an average the student to equipment ratio is 2:1 and it never exceeds 3, which is commendable. Power point presentations and regular assignments are used to instill in the student a through grasp of the fundamentals. With the support of faculty having industrial experience, students are familiarized with cutting edge research and industrial requirements. Besides strong academic inputs, the students are encouraged to do mini projects and gain hands on experience with the hardware and software tools. The department understands the needs of the industry and strives to produce quality engineers with professional orientation. The ambition of the department is to provide quality education and up to date information to the students, so that they find a place in the fast changing industry.

Seminars and Technical symposiums are conducted regularly to keep abreast with the latest trends in the industry. Technical exhibitions and workshops are also conducted to provide exposure into real time applications. Innovative ideas of faculty and students are developed through i-cell activities. Visits to industry and guest lectures by eminent professional from the industry add another dimension to the teaching learning experience. The department not only imparts training in technical skills, it also tries to cultivate ethical values among the students. Students are also encouraged to participate in co-curricular and extracurricular activities, which are so crucial in developing their soft skills and boosting confidence levels.

Our vision is that, "To be a world class centre that leads in learning and research in the area of industrial oriented Electronics and Communication Engineering.

In addition to the regular curriculam these kind of symposium, seminar, conferences conducted in the colleges are imparting trainings in the leadership and organizing skills to the students.



Mrs. G. JEYALAKSHMI HOD/ECE

I am extremely happy to bring out this message for the souvenir released on the technical symposium corics2kl4. And technology, teaching, training are the pillars of our department,importing the latest technical knowledge to the student and cultivating, nurturing the same in the right way will make our students competent in the competitive world. TECSA (Technology of Electronics & Communication Society of Adhi) offers a existing platform for the students to exhibit the knowledge they possess and a good change to develop the same.

As future engineers from adhi-ECE department, our students not only receive education but inherit a legacy, a brand that commands respect and has a standing in this Engineering world with expectations to fulfill, benchmarks to stand up to and most importantly become responsible citizens and work tirelessly, selflessly for the society as signified by the motto of our college "Truth, Strength and Endurance". So I wish you all success in each and every of your future endeavors. We are living in an era in which the world is rapidly changing. New innovations are taking place at such a breath-taking rate that yesterday's exciting discovery becomes today's standard and tomorrow's history!.

I congragulate and thank all the students and staff who have made tiring efforts to bring out of this souvenir and wish them all success.

# About TECSA

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, postgraduate 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. The electronics students' association was proposed with the objective to organize various activities that contributes to the academic and professional development of students along with leadership qualities, teamwork and other essential employability skills.

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 syllabi taught and the practical application in industry.

The ECE association was the conception of Mr. G. Murali (AP/ECE) in 28-02-2011 seeded with the idea of organizing a national level symposium which would be the first of its kind in the college. Since its conception in 2011, the ECE Association has played the vital role of being the much needed bridge between the students and industry level research and development. Then national level conference was conducted on 28-02-2013 as a part of TECSA activities. The Association organizes several events throughout the academic year like guest lectures, one of the greatest department symposium.

# words from our peloved IECSy chairman



Mr. SAYED ABDAHIR Y.

Dear Students,

Do not dwell in the past; do not dream of the future you can't control, concentrate on the present moment. Don't just go through life, GROW through life. Today is the day where all the wonders happen; the so called "Tomorrow" Never Comes. Learn something new every day, you will be an illiterate the day you stop learning.

Gone are the days where Slow and Steady wins the race, now only the Fast and the Furious wins the race. The future belongs to those who sweat out today, Go with all guns blazing.

Communication is looking for highly motivated individuals to join the planning committee for 2014. It is an excellent opportunity to gain leadership and management experience. Available positions include chair person, treasurer, publicity coordinator, and executive members.

"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."

# ECE STAFF DETAILS

S.No	Faculty Name	Designation	Experience in years	
Teaching Faculty				
1	Mrs. G. JEYALAKSHMI	Associate Professor	13	
2	Mr. M. MEENATCHI SUNDARAM	Assistant Professor	6	
3	Mr. Y. SAYED ABDHAHIR	Assistant Professor	5	
4	Mr. K. GUNASEKARAN	Assistant Professor	5	
5	Ms. G. AKALYA DEVI	Assistant Professor	5	
6	Mr. E.P. JEEN LAL	Assistant Professor	5	
7	Mr. V. RAJESH	Assistant Professor	5	
8	Mr. K. DINESH BABU	Assistant Professor	5	
9	Ms. R. SUJATHA	Assistant Professor	5	
10	Mrs.S. YAMUNA DEVI	Assistant Professor	5	
11	Mr. R. THIRUMURUGAN	Assistant Professor	5	
12	Ms. E. JAYANTHI	Assistant Professor	3	
Non – Teaching Faculty				
1	Mr. JAYAPRAKASH	Lab Assistant	4	

# DEPARTMENT STAFF MEMBERS



# GALLARY OF STAFFS



Mr. M. MEENATCHI SUNDARAM



M2. Y. SAYED ABDHAHIR



M2. K. GUNASEKARAN



M2. K. DINESH BABU



M2. E.P. JEEN LAL



M2. V. RAJESH



Ma. G. AKALYA DEVI



Ma. R. SUJATHA



Mrs. S. YAMUNA DEVI



M2. R. THIRUMURUGAN



Ma. E. JAYANTHI



Mr. JAYAPRAKASH

### OUR SPECIAL FACULTY FROM CSE DEPARTMENT

MR.BENNY SAYS.....



MR. BENVAMIN PAUL

"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.

# SUPPORTING FOIGHTIES FROM OTHER SEPORTMENTS









M2. K. S. THANGAVEL (CSE) M2. A. VAMSINAGAMOHAN (SVH)



Mas. T. YAMUNA (EEE)



M2. J. ANTONY VIJAY (CSE)



Mr. A. GUNASEELAN (EEE)



M2. S.R. ANAND (ELECTRICIAN)



M2. THANDAPANI (ACCT)



Mr. V. S. SAANTHARAM (OFFICE ASS.)

# **EVENT INCHARGE**

S.No	Faculty Name	Designation
1	Ms. G. AKALYA DEVI	Paper Presentation
2	Mr. K. DINESH BABU	Project Expo
3	Mr. V. RAJESH	Technical Quiz
4	Ms. R. SUJATHA	Circuit Debugging
5	Mr. S. BENJAMIN PAUL	Short Film
6	Mr. K. GUNASEKARAN	Gaming
7	Mr. M. MEENATCHI SUNDARAM	Treasure Hunt
8	Mr. E.P. JEEN LAL	Fear Factor
9	Mr. R. THIRUMURUGAN	Surprise Event
10	Mrs.S. YAMUNA DEVI	Hospitality
11	Ms. E. JAYANTHI	Reception & Anchor

# SYMPOSIUM COMMITEE MEMBERS

S.No	Name	Designation	
1	Mrs. G. JEYALAKSHMI	Convenor	
2	Mr. Y. SAYED ABDHAHIR	Chairmain of TECSA	
3	Mr. M. ANUDEEPAKUMAR	Secretary	
4	Mr. R. PRASANNA	Joint Secretary	
5	Mr. AKSHAY	President	
6	Mr. P.THANIGAIVEL	Vice president	
9	Ms. TANAYA	Ms Presedent	
10	Ms. ARATI ARYA	Ms Vice Presedent	
11	Mr. P. THANIGACHALAM	Treasurer	
12	Mr. T. DHAYANITHI	Event Co-Ordinator	
13	Mr. C. PRAVEEN	Proceeding Associate	
14	Mr. E. KISHORE	Vice Proceeding Associate	
15	Mr. R. SANDY ASH	Photographer	
16	Mr. J. GOPINATH	Video Grapher	
17	Ms. S. SUBAVEENA	Hospitality	

# COMMITTEE MEMBER GROUP PHOTO











# **ABSTRACTS**

SECURITY SYSTEM FOR INDUSTRIES-PYROBOT

M.Lakshmi, Crisna Preethi Gkm College Of Engineering & Technology

Our goal is to develop an intelligent multi sensor based fire fighting robot in our daily life. We design the fire detection system using four flame sensors in the fire fighting robot, and program the fire detection and fighting procedure using sensor based method. The fire fighting robot is equipped with four ermistors /flame sensors that continuously monitor the temperature. If the temperature increases beyond the predetermined threshold value, buzzer sounds to intimate the occurrence of fire accident and a warning message will be sent to the respective personnel in the industry and to nearby fire station with the GSM module provided to it. Fire Fighting Robot continuously monitors the temperature at four sensors and if fire accident is true, the robot moves to the direction to which the temperature is recorded to be the relatively maximum among the four sensors and extinguishes the fire with water pump provided to it. After extinguishing the fire it comes back to its initial position. It is more advantageous than a smoke detector as it can extinguish the fire at the inception than waiting for an object to burn and produce smoke. When a smoke detector detects fire it, sprays water all over the place, instead of that particular point of source. It voluntarily detects and extinguishes fire without human aid.

STRUCTURE AND SESIMIC MONITORING SYSTEM WITH WIRELESS SENSOR NETWORK
Shoba M, Yoçeshswari.M, Asthalakshmi
Adhi college of Engineering and Technology

Major Damage to the building is usually caused by the natural calamities. But there are various factors that can cause damage to the buildings are Erosion Earthquake, Natural Calamities, Violence, Fire and Lack of maintenance. But now days due to minor earth vibration and its effects and causes are avoided and which can even cause a great disaster due to running time. In the existing system the vibration which can be realized by human being will be identified, those system is nor capable of minor vibrations. The minor vibration can cause required force to move or alter the internal structure of walls, floors and roofs of the buildings, which will not be visible because of the internal activity.

Hence it is necessary to monitor the minute vibrations and the slope of the building surface to avoid the disaster. Hence this problem must be overcome by the proposed techniques. here by the help of Wireless Sensor Network (WSN) we can monitor the vibration and any tiny movements occurrence inside the walls, floors and roofs etc. to sense the miniature movements MEMS based accelerometer is been used.WSN can be implemented by using IEEE 802.15.4.

# HANDSFREE VALET TECHNOLOGY (HFVT)

Joshua Matt Abraham, Joseph Jos K St. Joseph's College of Engineering,

In a world striving for excellence in the field of automobiles, auto industries have been competing with each other to satisfy the users need for comfort, luxury and convenience. But one thing they seemed to have ignored until recently is a self-sufficient automated parking system. Parking as we know has been a dilemma for our drivers ever since dearth of parking space became a major issue. The systems at present are not completely autonomous and are severely limited. Therefore we propose Hands Free Valet Technology (HFVT): a technology that can identify a parking space and simultaneously perform a parallel or head-in park by itself thus providing the user an effective car parking system at his disposal. The goal of HFVT is to model real world dynamics of vehicular parking as accurately as possible regardless of parking lot structure (parallel or head-in) within the confines of the hardware and software while retaining the potential for technological advancement, scalability, and deployment of technology. The HFVT contains four primary components integrated neatly into a single package: a vehicle chassis, four sensors (two ultrasonic and two bumps), two motors, and a goal-based reflex algorithm. Firstly, a car is driven down a street searching for a parking space to its right using a distance sensor. When the car identifies a space, it checks to see whether it is large enough for the car to be parked in. If it determines that there is sufficient space, the car will begin parking into that space completely autonomously. It uses information from sensors placed on the front, right, left and rear of the car to direct the car into the parking space. Once the car is parked, it will remain in that position until it is reset.

### RED TACTON

B.Monica, R.Sujitha, Mookambigai College of Engineering,

Technology is making many things easier; I can say that our concept is standing example for that. So far we have seen LAN, MAN, WAN, INTERNET & many more but here is new concept of "RED TACTON" which makes the human body as a communication network by name .... HAN (Human Area Network). NTT lab from Japan is currently testing & developing this revolutionary technology .Red Tacton is a new Human Area networking technology that uses the surface of the human body as a safe, high speed network transmission path. Red Tacton uses the minute electric field generated by human body as medium for transmitting the data. The chips which will be embedded in various devices contain transmitter and receiver built to send and accept data in digital format. In this paper we will discuss about Red Tacton, and its working states and applications of Red Tacton in various fields. And we will compare our Red Tacton with the other technology for data transmission and know about Human Area Network

# MULTIPURPOSE ROBOT FOR MILITARY APPLICATION USING RF

Arun Hassan K, Dhayanithi T, Mahendiran E, Yalla Manoj Kumar Adhi college of Engineering and Technology

Robot warriors have already seen in Army plans to replace one-third of its armored vehicles, with metal detector and to identify people. These killing machines may one day come equipped with an artificial conscience even to the extent of disobeying immoral orders. The Army latest recruits are I meter (about 3 feet) tall, wear desert camouflage and are armed. They also move on caterpillar tracks and thanks to camera eyes can even see in the dark. The fearless fighters are the robot soldiers who, noticed by the general public, charged with high power battery. As if guided by an unseen hand, they hone in on their targets. It's the future of war and it's already here. "SWORDS" or the Special Weapons Observation Reconnaissance Detection System, "It's the first weaponized robot in the history of warfare," says Charles Dean, an engineer with Waltham, Massachusetts-based Foster-Miller, the manufacturer of the new devices. Dean and the 70 employees in his department are eager to find out how their three protégés are holding up on the front. Because the three robots, dubbed "Swords," are being used in a secret mission, their creators have no idea whether the devices have already killed enemy fighters in combat.

### PLANAR INVERTED 'F' ANTENNA FOR WIRELESS COMMUNICATION

E.DivyaBharathi, N.Lakshmi Bala, V.Meena Adhi Parasakthi Engineering College

The development of compact and efficient Planar Inverted-F Antennas (PIFA) proposes some methods that can be used for improvement in bandwidth and reduction in volume of these antennas. In this paper a small triple band planar inverted-F antenna with independently controlling the resonant frequency is presented. New configurations of slotted (PIFA) antennas simulated at different frequencies and which can be integrated in mobile handsets are proposed. In the case of a wire Inverted-F Antenna (IFA), design curves are available for a given resonant frequency and impedance bandwidth through which IFA can be designed. However, no such design curves exist for the PIFA. If similar design curves can be made available, it would be a very useful guideline for people to design the PIFA antenna at a given resonant frequency. Parametric study performed on PIFA was very useful in designing and optimizing the parameters to target the required communication bands. There are different structure and different techniques to increase the bandwidth and to have multiband in single antenna by using U-shaped slots. Also, by inserting two parallel slots close to the radiating edges of the patch

antenna a wider impedance bandwidth and dual band resonance has been achieved. A rectangular slot is inserted between a U-shaped slot to achieve dual band. The rectangular slots are etched on the patch to achieve tri-band applications. The height of PIFA can be increased to enhance the impedance bandwidth but a small height of the top plate is preferred in practice as the antenna has to be small enough to fit it in the chassis of small terminal devices. The antenna occupies a compact size of 22.4 x 46 x 7.75 mm. The main radiating patch is etched/cut with slots (parallel and U-shaped slot) to generate and control the three resonant frequencies to cover 1.7GHz Long Term Evolution (LTE), 2.4GHz Wireless Local Area Network (WLAN/Bluetooth IEEE 802.11) and 3.7GHz Worldwide Interoperability for Microwave Access (WiMAX). Good broadside radiation patterns are achieved for all frequency bands of interest using capacitive and inductive loading.

# DESIGN OF ELECTRONIC VOTING SYSTEMS FOR REDUCING ELECTION PROCESS

Nazia, Sangeetha M, Tanaya, R. Vithya Adhi college of Engineering and Technology

The electoral process in India is known with tedious activities and time consuming. There is a serious problem in terms of delivering the electoral facilities to the voting station and securing such cities. Even before this activities there must be training of personal that will be involve in such exercise with involve huge amount of money and time consuming. It is in line with this problem the researcher intend to develop an online electronic voting systems to checkmate those problems. Each voter will be screen for eligibility, thereafter the information will be store in database so that at any time the voter can login and cast his/her vote and monitor the result online. Whenever a voter cast a vote the systems will automatically saves all his records including the ballot, username, address and password for future references. An administrator will then be able to monitor all the process and check for any illegal actions. This systems if put into use will increase transparency accountability as the observer can monitor all the activities during the registration/poling exercise.

# BRAIN CONTROLLED CAR FOR DISABLED USING ARTIFICIAL INTELLIGENCE

R.Gowtham, K.Elaya Kumaran Arunai College Of Engineering.

This paper considers the development of a brain driven car, which would be of great help to the physically disabled people. Since these cars will rely only on what the individual is thinking they will hence not require any physical movement on the part of the individual. The car integrates signals from a variety of sensors like video, weather monitor, anti-collision etc. it also has an automatic navigation system in case of emergency. The car works on the asynchronous mechanism of artificial intelligence. It's a great advance of technology which will make the disabled, abled. In the 40s and 50s, a number of researchers explored the connection between neurology, information theory, and cybernetics. Some of them built machines that used electronic networks to exhibit rudimentary intelligence, such as W. Grey Walter's turtles and the Johns Hopkins Beast. Many of these researchers gathered for meetings of the Teleological Society at Princeton and the Ratio Club in England.

# MICROCONTROLLER BASED SECURE PIN ENTRY METHOD FOR ATM TRANSACTION WITHOUT DEBIT CARD

H. Monisha, M. Aishwarya, V. Indira Adhi college of Engineering and Technology

In this project a highly secured ATM transaction system has been developed with the help of Dot Net programming and Embedded C. The authenticator (Bank) generates a random number and provides that to the user whenever the user forget to bring ATM Card or if missed his/her cardhence he/she want make an transaction in ATM. The random generated code will be send to the card user with the help of GSM technology. The user can provide this code on the ATM machine and can continue his transaction. This system will help the user to secure his transaction and prevents the unauthorized usage of the card.

## SECURITY SYSTEM FOR INDUSTRIES-PYROBOT

M.Lakshmi, Crisna Preethi GKM College of Engineering & Technology

Our goal is to develop an intelligent multi sensor based fire fighting robot in our daily life. We design the fire detection system using four flame sensors in the fire fighting robot, and program the fire detection and fighting procedure using sensor based method. The fire fighting robot is equipped with four ermistors /flame sensors that continuously monitor the temperature. If the temperature increases beyond the predetermined threshold value, buzzer sounds to intimate the occurrence of fire accident and a warning message will be sent to the respective personnel in the industry and to nearby fire station with the GSM module provided to it. Fire Fighting Robot continuously monitors the temperature at four sensors and if fire accident is true, the robot moves to the direction to which the temperature is recorded to be the relatively maximum among the four sensors and extinguishes the fire with water pump provided to it. After extinguishing the fire it comes back to its initial position. It is more advantageous than a smoke detector as it can extinguish the fire at the inception than waiting for an object to burn and produce smoke. When a smoke detector detects fire it, sprays water all over the place, instead of that particular point of source. It voluntarily detects and extinguishes fire without human aid.

## PROJECT LOON

K.V.Revathi, E.Anupriya Computer Science Deapartment, Sri Sairam Engineering College

This document gives the information about providing internet to people all over the world by using a network of balloons. Project Loon is a balloon powered internet for everyone. Project Loon is a network of balloons traveling on the edge of space, designed to connect people in rural and remote areas, help fill coverage gaps, and bring people back online after disasters. In this paper we will present in detail about the balloon powered internet.

# SUPERPIXEL CLASSIFICATION BASED OPTIC DISC AND OPTIC CUP SEGMENTATION FOR GLAUCOMA SCREENING

Arati Arya, Arji Roja, Deeparathna Adhi college of Engineering and Technology

Glaucoma is a chronic eye disease that leads to vision loss. As it cannot be cured, detecting the disease in time is important. Current tests using intraocular pressure (IOP) are not sensitive enough for population based glaucoma screening. Optic nerve head assessment in retinal fundus images is both more promising and superior. This paper proposes optic disc and optic cup segmentation using superpixel classification for glaucoma screening. In optic disc segmentation, histograms and centre surround statistics are used to classify each superpixel as disc or non-disc. For optic cup segmentation, in addition to the histograms and centre surround statistics, the location information is also included into the feature space to boost the performance. The segmented optic disc and optic cup are then used to compute the cup to disc ratio for glaucoma screening. The Cup to Disc Ratio (CDR) of the color retinal fundus camera image is the primary identifier to confirm Glaucoma for a given patient.

# DESIGN OF CAN (CONTROLLER AREA NETWORK) BASED VEHICLE THEFT PREVEN-TION AND IDENTIFICATION SYSTEM

R. Prasanna, M. Ramarpandi, K. Somusundram Adhi college of Engineering and Technology

This project is to provide security system to the vehicles using CAN protocol. Controller Area Network (CAN) is a communication protocol used to transmit data and to interconnect a large network within a vehicular system. The main advantage of CAN protocol is its high data transmission range and it reduces usage of wires. In our work, CAN protocol is implemented to provide security against vehicle theft and to provide control signal to the vehicle. ARM controller is used to provide transmission between the different electronic systems within the vehicle. GPS is a Satellite based Communication System used to track the location of place or an object. Here the purpose of GPS is used to locate the vehicle during theft and accident. GSM is a mobile communication technology to transfer voice and data signals over the wide range. Here the communication between the vehicle and the owner is performed using GSM communication as a SMS (Short Message Service). The vehicle theft or accident information will be informed to the owner through the SMS message from the GSM modem in the vehicle. Vibration Sensor is used to sense any abnormal vibration happened in the vehicle. This work provides safety and security systems to the vehicular systems using CAN protocol.

# HIGH-THROUGHPUT MULTI STANDARD TRANSFORM CORE SUPPORTING MPEG/H·264/VC-1 USING COMMON SHARING DISTRIBUTED ARITHMETIC

Anudeephumar, Harsha, Bhuvaneshuran Adhi college of Engineering and Technology

This paper proposes a low-cost high-throughput multi standard transform (MST) core, which can support MPEG- 1/2/4 (8 × 8), H.264 (8 × 8, 4 × 4), and VC-1 (8 × 8, 8 × 4, 4×8, 4×4) transforms. Common sharing distributed arithmetic (CSDA) combines factor sharing and distributed arithmetic sharing techniques, efficiently reducing the number of adders for high hardware-sharing capability. This achieves a reduction in adders in the proposed MST, compared with the direct implementation method. With eight parallel computation paths, the proposed MST core has an eightfold operation frequency throughput rate. The CSDA-MST core thus achieves a high-throughput rate supporting multi standard transformations at low cost.

### WITRICITY

# E.Raju, K.Ramakrishnan

Can we imagine the life without electrical wires? From now onwards answer to this question is Yes. The method proposed in the present paper called Witricity will facilitate to Transfer power without using wires. The efficient midrange power can be transmitted to any device which uses that range of power by the technique used in this Witricity concept. When two magnetically Resonating objects at Strongly coupledrend to exchange energy efficiently by the transfer of power in the non-radiating fields. This is the basic principle involved in it. By taking two coils having same magnetic resonance and one is coupled to source and other is coupled to Device. So that the energy transfer is efficient even the air gap between them is high. Now a days there is a Rapid development of autonomous electronics like Laptops, Cellphones, House-hold robots and all the above devices typically rely on chemical energy storage (Battery). As they are becoming daily needs to present generation, Wireless energy transfer would be useful for many applications as above as they need midrange energy.

# A SURVEY OF SPACE ROBOTICS

G.Shylaja,k.Sindhuja. M. Kumarasamy Engineering College

In this paper we summarize a survey conducted by NASA to determine the state-of-the-art in space robotics and to predict future robotic capabilities under either nominal and intensive development effort. The space robotics assessment study examined both in-space operations including assembly, inspection, and maintenance and planetary surface operations like mobility and exploration. Applications of robotic autonomy and human-robot cooperation were considered. The study group devised a decomposition of robotic capabilities and then suggested metrics to specify the technical challenges associated with each. The conclusion of this paper identifies possible areas in which investment in space robotics could lead to significant advances of important technologies.

# BRAIN GATE TECHNOLOGY

# M.Bhwaneshwari(iii yr), m.Mohanapriya (iii yr)

In all primates, the neurons in the motor cortex of the brain normally send their instructions (signals) out to the spinal cord, which in turn drives muscles. Consider the simple voluntary task of moving one finger. This act takes some intention and a simple plan that originates in the cerebral cortex. A few milliseconds before voluntary movement, neural signals, in the form of a stream of impulses, increase in the primary motor cortex. This increase in impulse rate of a large group of neurons carries the commands for movement. When the connection from the brain to the spinal cord has severed, as in severely paralyzed people, the central control for motor behavior in the brain remains healthy, but the command signals are ineffective because they are cut off from the muscles. To overcome this problem we are using this brain gate technology to help the paralyzed people and to make them to operate computer, television, etc... The mind-to-movement system that allows a quadriplegic man to control a computer using only his thoughts is a scientific milestone. It was reached, in large part, through the brain gate system. This system has become a boon to the paralyzed.

# SPY HUNTER

# Joe Naveen M. Kumarasamy Engineering College

The project is designed to develop a robotic vehicle using RF technology for remote operation attached with wireless camera for monitoring purpose. The robot along with camera can wirelessly transmit real time video with night vision capabilities. This is kind of robot can be helpful for spying purpose in war fields. At the transmitting end using push buttons, commands are sent to the receiver to control the movement of the robot either to move forward, backward and left or right etc. At the receiving end two motors are interfaced to the Integrated Circuit where they are used for the movement of the vehicle. The RF transmitter acts as a RF remote control that has the advantage of adequate range (up to 200 meters) with proper antenna, while the receiver decodes before feeding it to another IC to drive DC motors via motor driver IC for necessary work. A wireless camera is mounted on the robot body for spying purpose even in complete darkness by using infrared lighting. A metal detector can be attached to the robot to detect the bombs in the field. This is a basic robot where it can be used for multipurpose. Further the project can be enhanced using DTMF technology. Using this technology we can control the robotic vehicle by using cell phone. This technology has an advantage over long communication range as compared to RF technology.

## AUTO-DIGI WATCH

# V.Swaminathan, D.Barathkumar Veltech bightech dr.Rangarajan dr.Sakunthala engineering college

Watches have become a basic part of our life. The watches with the use of batteries have always been expensive. They vary in their design and working. All watches irrespective of their design have to be replaced once the battery has drained out completely. Hence the need of automatic watches come into role. An analog automatic watch has a non uniform oscillating rotary mass attached with the spring. Our wrist movement makes the rotary mass to rotate and the spring attached to it expands and compresses to make the watch hands to rotate automatically without the use of batteries. Automatic Digital Watch is the modified concept of analog automatic watch.

The main objective of this current proposal is to make the digital watches independent of batteries. Since it is automatic it works on the movements of our wrist (or) hand itself. Our wrist movement activates a rotary mass which relays the momentum to a micro-generator with the help of a spring, the electric energy gained in the process is continuously feed to an accumulator i.e. a rechargeable battery. The power generated is stored in accumulator which gives controlled power to the digital display (LCD) of the watch. In case the energy stored in the accumulator exhausts an alternate battery is provided so that the watch does not stop working. Once the power to the display comes from the alternate battery a LED light starts glowing and a simple shake of hand will trigger input to the micro-generator and the watch again starts getting power from the accumulator and the LED turns off automatically. This project aim to provide the advantages of digital watch without the implementation of batteries unless and until the accumulator runs out of stored energy. We can name this watch as Mechanical Digital Watch.

# LI-FI TECHNOLOGY

M.Paramasivam, P.Abirami, Knowledge institutite of technology, Salem.

In simple terms, Li-Fi can be thought of as a light-based Wi-Fi. That is, it uses light instead of radio waves to transmit information. And instead of Wi-Fi modems, Li-Fi would use transceiver-fitted LED lamps that can light a room as well as transmit and receive information. Since simple light bulbs are used, there can technically be any number of access points.Li-Fi is typically implemented using white LED light bulbs at the downlink transmitter. These devices are normally used for illumination only by applying a constant current. However, by fast and subtle variations of the current, the optical output can be made to vary at extremely high speeds. This very property of optical current is used in Li-Fi setup. The operational procedure is very simple-, if the LED is on, you transmit a digital 1, if it's off you transmit a O. The LEDs can be switched on and off very quickly, which gives nice opportunities for transmitting data. Hence all that is required is some LEDs and a controller that code data into those LEDs. All one has to do is to vary the rate at which the LED's flicker depending upon the data we want to encode. Further enhancements can be made in this method, like using an array of LEDs for parallel data transmission, or using mixtures of red, green and blue LEDs to alter the light's frequency with each frequency encoding a different data channel. Such advancements promise a theoretical speed of 10 Gbps – meaning one can download a full high-definition film in just 30 seconds. TTo further get a grasp of Li-Fi consider an IR remote.(fig 3.3). It sends a single data stream of bits at the rate of 10,000-20,000 bps. Now replace the IR LED with a Light Box containing a large LED array. This system, fig 3.4, is capable of sending thousands of such streams at very fast rate. Light is inherently safe and can be used in places where radio frequency communication is often deemed problematic, such as in aircraft cabins or hospitals.

# AN EFFECTIVE DIGITAL WATERMARKING CONCEPT USING 2-LEVEL DWT TRANSFORM

Azalya.V., Gayathri.N Mailam Engineering College, Mailam. Villupuram (Dt).

Now-a-days security plays an important role in the field of image processing, one of the major issues of digital watermarking is feature extraction. In olden days, the techniques used for feature extraction is PCA (Principle Component Analysis). In this project, a new technique for feature extraction based on "Energy Analysis" is proposed. To increase the authentication and resolution of the image, optimization techniques are used. The 2-level DWT is used to hide the watermark image in the original image and finally watermarked image is formed in wavelet domain. In this proposed technique, the perceptual lossless ratio (PLR) for a complementary watermark modulation is first derived.

# STUDENT'S ARTICLES

# AMAZING FACTS

- 1. Albert Einstein used only 12% of his intelligence.
- 2. Average human brain weighs about 1360 grams.

3. Octopus has 3 hearts.

- 4. When a new born baby cries no tears are produced.
- 5. Crocodiles sleep keeping their eyes wide open. 6. Cats cannot see if there is total darkness.
- 7. Lizard does not drink water at all.

8. Yak's milk is in violet colours.

# GREAT QUOTES

- If you born poor, its not your mistake, But if you die poor, its your mistake.
- 2. Your birth may be normal, But your death should be history.
- 3. Follow none,

But learn from every one!

- 4. Do or die is an old concept, Do it before die is a new concept.
- 5. To be beautiful means to be you
- 6. You don't need to be accepted by others You just need to accept.

7. The best revenge is massive success.

8. Life is like photography. You need the negatives to develop.

9. Before you can work smart you must work hard.

10. The only time success occurs before work is in the dictionary

# MANTRAS FOR HOW TO LIVE BETTER

- 1. Talk-softly
- 2. Eat-sensibly
- Breath-deeply
   Exercise-daily
- 5. Sleep-sufficently
- 6. Dress-smartly
- 7. Act-fearlessly 8. Work-patiently

- 9. Think-positively
- 10. Trust-cautionsly
- 11. Learn-practically
- 12. Plan-oderly
- 13. Earn-honestly
- 14. Save-regularly
- 15. Spend-intelligently

Pooja S. II - Year

III - Year

# WELCOME 2 GUD NYT RESTAURANT

MENU: COOL PÍllow, COOL WATER BED, HOT BLANKET
DISCOUNT-on-bill: free cool dreams
Thank you
Please visit again
Gud nyt

### CONFUSION:

### ICAN

can you can a can as canners can a can.

# NOTICE IT

if you notice this notice you will notice that is not worth noticing.

THOUGHTOFIT

I thought a thought, but it wasn't the thought i thought i thought i thought if the thought i thought i thought i wouldn't have thought so much.

Vijayalakshmi II - Year

# GENERAL KNOWLEDGE (ENVIRONMENT, SCIENCE AND TECHNOLOGY)

- 1. What is the fraudulent process of attempting to acquire sensitive information such as user name, password and credit card details by disguising as a trust worthy entity in an electronic communication?
- 2. Which country launched the solar B-Satellite to study the sun?

3. Who introduced computer mouse for the first time?

4. Which company made the first commercial portable cell phones in 1983?

5. Who created Wikipedia on the World Wide Web?

6. Due to the presence of which substances is the tomato red?

- 7. Who built the first general purpose electrically operated computer made in 1930 by IBM?
- 8. A microprocessor in use creates a large amount of heat, which property does this refer to?

9. Who is the first state leader to send an email?

10. In which year sun Microsystems launched Java?

11. Which virus shutdown 10% of the world's internet server in 1988?

12. Name the vibrations that travel through the earth carrying the energy re leased during earthquake?

13. Which instrument is used in measuring the heating power of radiation?

# ANSWERS:-

I. PÍShÍNG, 2. Japan, 3. Douglas Engelbart, 4. Motorola, 5. Jímmy Wales, 6. Lyco-pene, 7. Howard Aíkens, 8. Resístance, 9. Quenn Elízebeth, 10. 1995, 11. Internet Worm (or) Morris Worm, 12. Sesímic Waves, 13. Actinometer.

U.Vidya

# PROBLEMS IN INDIA WE FACE TODAY

Generally our problems can be classified into two.

1. Natural problem

2. Manmade problem

# MANMADE PROBLEM:

Man made problems are the most prevalent in our India. They are more curious and ill effects than the natural problems some of the man made problems are Terrorism, corruption, inflation, poverty, unemployment, misuse of science and technology.

# SCIENCE AND TECHNOLOGY:

Without the science and technology not only our India, the each will seems to be a vacuum space. But human beings misuse the science and technology now a days for this the best example is inventions of destructive weapons. And the another invention of science is the most important in this world, from this lines we can guess, what it is, the invention of computer and the internet. We can get the information in our finger tips with the presence of internet and the computer. But most of the people will misuse them and some people will use it in a proper manner. By the misuse of this, the future for students, also get spoiled.

# TERRORISM:

Terrorism is the grave problem in our whole world face today. Terrorists are not terrorists, but their surroundings, and the society made them so, most of the terrorists are young and intelligent people. But they spoil themselves for the rendering of money and evil thoughts to my country.

### CORRUPTION:

Today there is not even a single place without corruption, especially government organization. If any needs have to be fulfilled then we will undergo much harassment and are forced to give bribery or else our needs will be left unattended. Hence bribery should be completely abolished and the act of corruption should be erased from everywhere.

# **INFLATION:**

Inflation is another problem that welfare today. Due to inflation, every commodity is costly especially in the case of vegetables, fruits, medicines and fuel. Because of these, the poor people have come to a standstill.

### POVERTY:

The world without poverty is "heaven". Because most of the people will be in below the poverty line. Due to the lack of employment, education, proper food etc. so that below the age of 14 year children's are sent with their parent for work and they also got the low wages but their work is move.

### UNEMPLOYMENT AND ILLITERACY:

Without employment and education life will be impossible, these two are the major problems faced by today's people. In today's world both are of high importance to decide the life of human being.

### NATURAL PROBLEMS:

Natural problems are unpredictable. Human beings also have a part in such problems. Some of the natural problems are, Global warming, Tsunami, Earthquake, No rainfall, Spreading of new type of diseases and Ozone depletion. Global warming is one of the major problems faced by the world today. It is caused by human activities. It gives both several diseases and other environmental disasters. Other than global warming and ozone depletion which are the world wide common problems. All others are unpredictable with disastrous effects.

## CONCLUSION:

Human beings can only find a remedy for all these problems. To make our future safe, it is necessary to solve all of them. For achieving their goal we should work together for getting all our discrimination "unity is strength" is suitable proverb for this conclusion.

U. Vidya II - Year

# POEM:

If u can trust urself, when all mean doubt you If u can dream and not make dreams your master If u can think and not make thoughts ur aim If u can meet triumph and disaster And treat these two impostors just the same If u can bare to hear the truth u have spoken If u can fill the unforgiving moment urs is the earth and everything thats in it And which is more u r a "MAN"

### CRICKET EXAM:

Clean Bold - Failed in all exams
Run out - Failed due to shortage of time
Hit wicket - Failure due to bad pen or paper
Follow on - Appearing for arrear exam
L.B.W - Caught while copying
Sixer - Highest score in exam
Out - Failed in exam

Nagarajan.K III - Year

# HOW WILL AN ELECTRONICS ENGINEER WRITES A LOVE LETTER

Dear, I need you to AMPLIFY my happiness and RECTIFY my sadness without you I am like a circuit without POWER SUPPLY. my love towards you is increasing like ELECTRICITY through DIODE connected in FORWARD BIAS, but your response is electricity through DIODE connected in REVERSE BIAS. so accept my INPUT understand my theory and express your OUTPUT.

P.Muni teja II - Year

# EASY ... · DIFFICULT

Easy to judge other mistakes Difficult to recognise one's own, mistake Easy to talk without thinking Difficult to refrain the tongue Easy to set rules Difficult to follow them Easy to celebrate victory Difficult to accept defeat with dignity Easy to live everyday Difficult to give its real value Easy to criticize others Difficult to improve oneself Easy to make mistakes Difficult to learn from them Easy to receive Difficult to give Easy to keep the friendship with words Difficult to keep it meaningful Easy to read all this Difficult to follow all this.....

> R.Anupriya III - Year

# STUDENT'S EACHTCHS

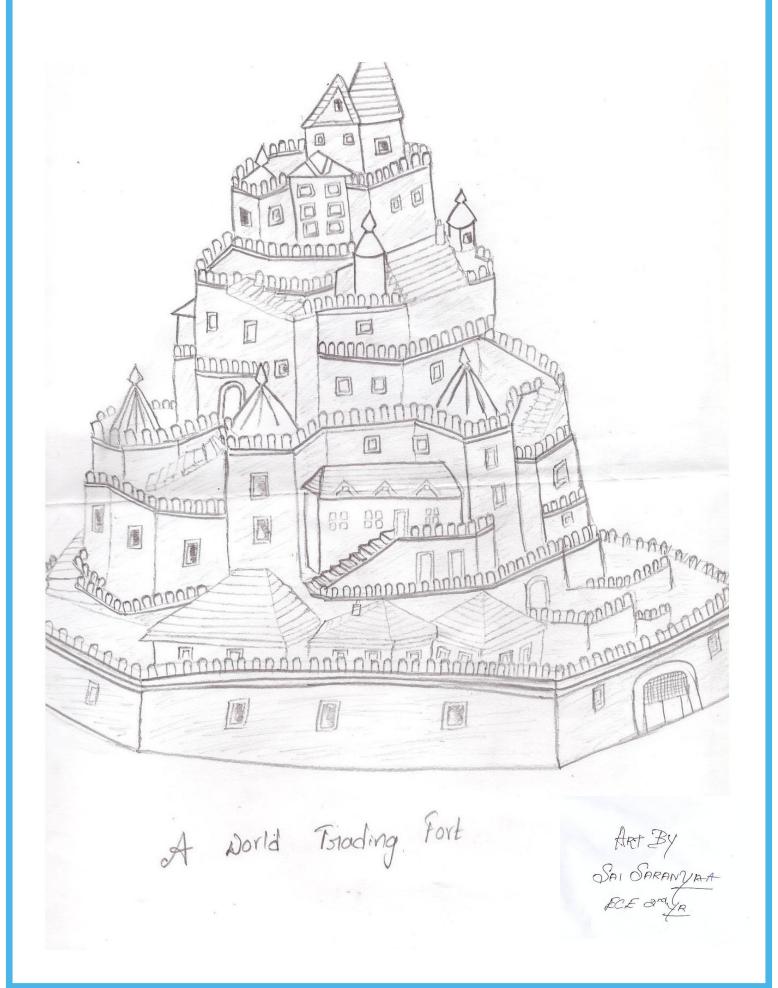


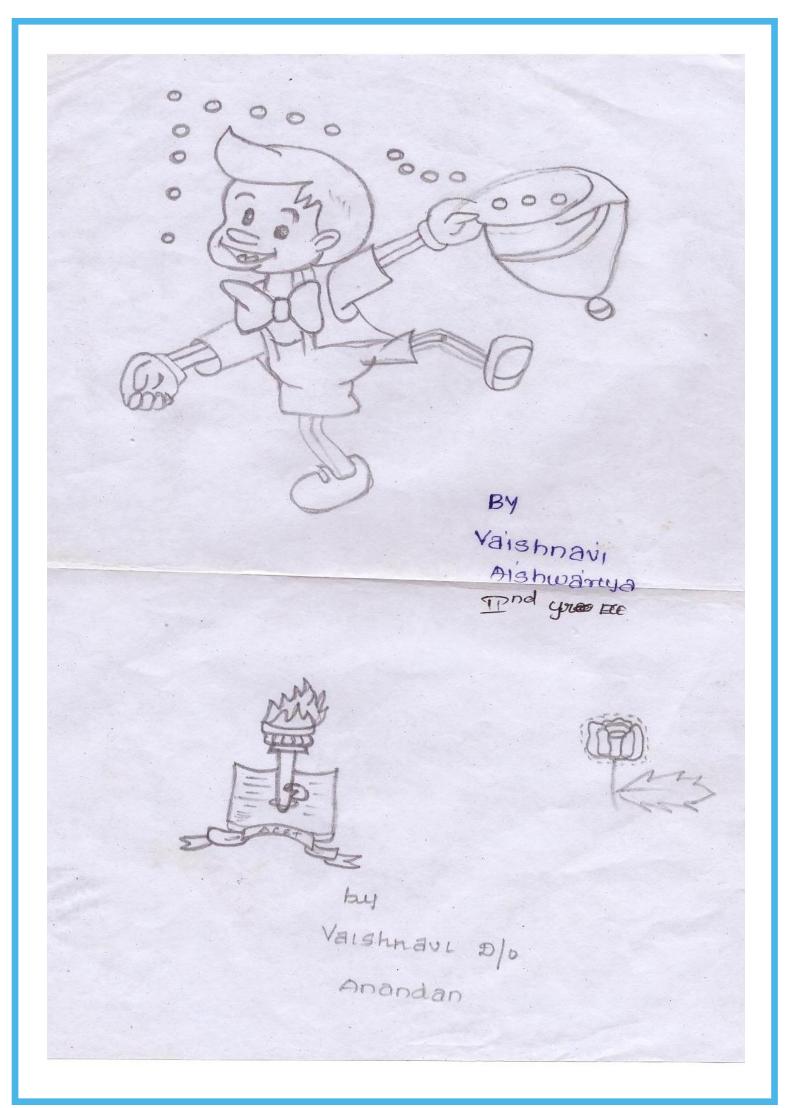




ART BY SAI SARANYAA ECE OMYR











அனைத்து மோட்டார் வாகனங்களின் உதிரிபாகங்கள் எங்களிடம் கிடைக்கும்

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