Dear Readers,

With an early summer and souring heat we stepped into the month of April as the year long activities culminated into a test of knowledge for our students in the form of end examinations. Inspite of the busy schedules and teachers trying their best to complete the syllabus before the last working day, we did not loose any opportunity to showcase the talents of our students through Samudyama, a project expo, organised for the first time, to evaluate the projects done by our final year students, and present awards to the best projects. It has been a practice in the college over the years to make it mandatory for all final students to develop their major projects strictly on campus in order to discourage them from submitting readymade projects. This has resulted in the development of some of the most innovative projects from the students with the guidance from our teachers and have won laurels from all sections. Many projects were developed highlighting the need for energy conservation, water harvesting, IOT based farming, etc. This issue of our newsletter gives an in-depth overview of all the projects exhibited in Samudyama.

The classwork has come to an end mid April, and all our students and staff got busy with internal and external theory and practical examinations with no time for any other activity. While the preparations for the next academic year are underway, we wish our students all the very best for the examinations and hope that they come out with flying colours and join us back as soon as the year begins.

Good luck folks!

- Srikanth Jatla

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COLLEGE ACTIVITIES

SAMUDYAMA

'SAMUDYAMA' A National level Project Expo, is conducted every year to invite maximum participation from final year students. It encourages students to extend their knowledge, imaginative thinking and creative engineering and technology approach. The main aim of this initiative is to bring out student creativity and innovation on Engineering concepts. From indigenously built walking robots and go kart to projects answering most intriguing questions, the expo provides a forum for students to showcase their pragmatic understanding of technology. This event is significant not only because students will be presenting their work but it gives them an opportunity to network with industry professionals.

A project model is nothing but the combination of application of the subject and innovative thoughts. A college level project is the first step into the world of innovation.

On 12th April 2016 'Samudyama'- A project expo was held in the college. Students of all the branches of Engineering participated in the expo and displayed their models. I/c Director Sri Srikanth Jatla had shown keen interest in this Project Expo. He encouraged the students to exhibit their talents and to inculcate interest in research field. The Convener of this programme is Sri J.Jawaharlal, H.o.D of EEE branch had put in great efforts to involve more number of students to participate with their innovative models in the expo. His efforts were fruitful, a good number of students from each branch participated with great enthusiasm. Almost 10 to 15 teams from each branch have come with their innovative models. The great success of project expo is the evidence of efforts and concern of the director, the Convener, the H.o.Ds and the faculty.

All the models exhibited by the students were praiseworthy. In fact judging the models had become a tough task for the project experts, who were invited as honourable judges from various colleges and industries. They appreciated the project models and congratulated the students. They felt it was quite challenging to decide the first prize.

The first prize in Civil Engineering was given to the model 'Pervious Concrete'. The team members are Ms. Ammaji, Mr. Chandrakanth and Mr. Sai Krishna. The project expert and the judge is Mr.Vimal kishore.

The first prize in CSE was given to the model 'Smart water Sprinkler system'. The team members are Mr. Anesh and Mr. Pratap Bhargav. The project expert and judge was Ms. Durga.
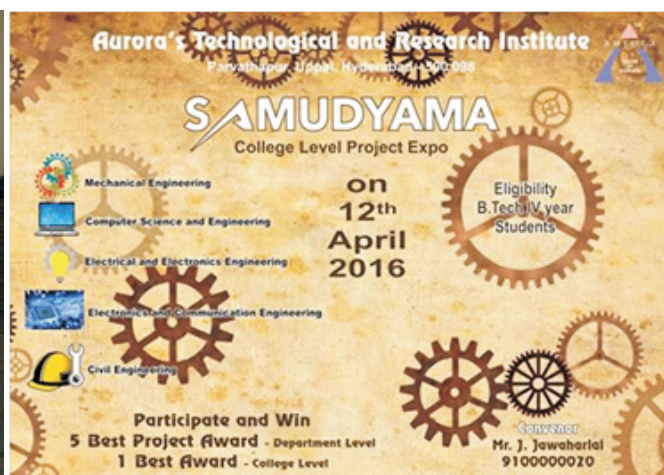
> **If your actions
> Inspire others to
> dream more,
> learn more,
> do more
> and become more
> you are a leader**
>
> **- Stephen Covey**

The first prize in ECE was given to the model, 'Hand gesture based wireless control of Robot designed with MEMS'. The team members are Mr.Anil Reddy, Mr.shashidhar Reddy and Ms.B.Reshma.The project experts are Mr.Shravan kumar Reddy and Mr.A.Malla Reddy.

The first prize in EEE was given to the model, 'Autonomous Agrobat' the team members are Mr.kiran, Ms.Amulya and Ms.Pranaya. The project expert and judge is Mr. Narender Reddy.

The first prize in Mechanical Engineering was given to the model, 'KART-4 stroke petrol engine'. A ten member team was involved in this project and the team leader is Mr.D.Vivenkananda Rao. The project expert and judge is Mr.V.Santosh Kulkarni.

The college level first and second prizes were also given. Heads of the Departments, the Project experts, the Convener and the Director unanimously decided these prizes.

'Pervious Concrete' model of Civil Engineering bagged the first prize and 'Autonomous Agrobot' model of Electrical and Electronics Engineering bagged the second prize.

In the evening at the valedictory function the honourable judges, the Convener and the Director gave away the prizes to all the winners.

In his address, I/c Director Srikanth Jatla congratulated all the students and praised all the models exhibited in the expo and promised necessary cooperation and support to all enthusiastic students. In the next academic year 'National level project expo' will be conducted.

Sri. J. Jawaharlal, the Convener and HoD of EEE, in his address appreciated the efforts put in by the students and expressed his gratitude to the director and all the teaching staff for making the event a grand success.

The Heads of Departments of Civil, Mechanical, CSE, EEE and ECE in their address congratulated all the students and promised to extend their support whenever the students needed.

Finally the judges and project exports in their speech expressed their heartfelt happiness for the models exhibited and praised the prize winners as future scientists.

Farewell - VIGAMA 2016 - Until We Meet Again

Students get together to share happy memories of their college life and the nostalgic moments of departing from friends, but yet it is inevitable. As Every beginning has an end, every end has a brand new beginning. We wish all the students happy adventures, fantastic new friendships, amazing experiences and the journey of a lifetime.

Civil: The day began with few speeches from faculty members. It was followed by fun games such as Musical chairs, Dumbcharades, Antyakshari, Tongue twisters, Horse Tail etc . The day slowly paced down with group dancing to rocking music scores and everyone felt ecstatic. Faculty always wish to see their students come out with flying colours. Third years wished their seniors good luck. The entire credit goes to III-II semester students for their planning and organization of a wonderful event.

Mechanical : After the welcoming ceremony, the HOD of the Mechanical department addressed the final year students. This was followed by individual speeches by the faculty members of the department. Later it was the turn of the final year students to recount their experiences over the length of their course and reflect upon memories both individual and collective. They also gave valuable advice to the third years which was well received and promised upon to be implemented. Both the fourth and the third years were involved in singing and dancing with the fourth years performing one last hurrah. This was followed by a photo session where the faculty members and students saved their memories of the journey in pictures. The programme was signed off with a vote of thanks given by the fourth years.

ECE Farewell
Farewell began with a welcome address by the third year students. Later   Head of the dept. and few faculty addressed the gathering, followed by final year students sharing their memories in the college . Juniors conducted games like ramp walk, rose dedication, dumb game, rope game, mimicry etc. Juniors performed dances and few skits to entertain seniors. Prizes were given to the winners of above games and

photo frames as a token of memory to all seniors. Juniors took the hand print of seniors in colour on a banner for their memory. Post lunch the programme ended with a DJ.

CSE Farewell
Farewell began with a welcome address by the third year students.   Head of the dept and few faculty addressed the gathering, followed by final year students sharing their memories in the college. The entertainment part of the party had events like Tambola, Complete the picture on the Board, Singing,, Dancing and each junior gifting one rose to a senior. Post lunch the programme ended with a DJ.

EEE Farewell
It was hosted by the students of III year and dedicated to IV year students of A & B Section. The day started with great excitement as all the final year students dressed up in glamorous attires. They enjoyed playing musical chairs, dumbcharades and   the final year students shared their experiences in the college with their friends and faculty. All the faculty members addressed the gathering by expressing their wishes to the students for their bright future.

NSS

NSS Achievement

A programme on World Peace Festival for Youth for Biodiversity was organized on 30-4-2016 at Anurag College of Engineering by World Peace Festival Society & Lee Shreyu's Foundation in association with Telangana State Biodiversity Board & South Asian Youth Environment Networks. The chief guests for the programme were K. Purushotham Reddy ,a great Environmentalist, Dr. B. Suresh Lal, Professor from Kakinada University and Prof. Murthy, Principal , Anurag Group of Institutuions.

Ms. P. Nikhila Bhardawaj , ECE IIIB student from our college has won the International "SHANTHI DHOOTH" Award for her Service and Contribution towards NSS (National Service Scheme) for the last three years. She was presented the award by Dr. K. Purushotham Reddy.

Congratulations to Ms. Nikhila and the NSS unit of our college for this outstanding achievement.

CREATIVITY IS THINKING UP NEW THINGS

INNOVATION IS DOING NEW THINGS

INSPIRING STORY

SHAKE OFF YOUR PROBLEMS

A man's favorite donkey falls into a deep precipice; He can't pull it out no matter how hard he tries; He therefore decides to bury it alive. So soil was poured onto the donkey from above. The donkey feels the load, shakes it off, and steps on it; More soil was poured. It shakes it off and steps up; the more the load was poured, the higher it rose; By noon, the donkey was grazing in green pastures. After much shaking off (of problems) And stepping up (learning from them), One will graze in GREEN PASTURES.

Effort
Will Release
It's Reward
Only After
You Refuse
To Quit.

Placement News

Conducted on 4-4-2016
No of students attended for the drive-510
Dept: CSE,IT,EEE,ECE,CIVIL,MECH
Colleges: ATRI,ASTI,ASTRA.AEC

Conducted on 6-4-2016
No of students attended for the drive-226
Dept: CSE,IT,EEE,ECE,CIVIL,MECH
Colleges: ATRI,ASTI,ASTRA.AEC.

Computer Science and Engineering Department

1. Traffic and Accident Control Monitoring System   Guide:Ms. M. Nirmala

12841A05E9   J. SAI SHARATH
12841A05C5   SAI RAKESH DASARI
12841A05F6   M.ROHIT

Description:

Road traffic, by dimensions, weights and speeds of vehicles that are moving is a danger that requires precise deployment rules, advanced technical systems for safe movement, an appropriate infrastructure etc. each of which can contribute to improving safety on public roads. One of the main causes of serious accidents is the failure of speed control and road weather conditions. In this paper we present an electronic road traffic information and monitoring system, which consists of a traffic information system and detection equipment and weather monitoring, video imaging to speeding vehicles and the weight permitted for movement on public roads.

2. Malicious nodes in MANETS,   Guide:Ms. Pranusha Reddy

13845A0501   ANIL KUMAR DUBEY
12841A05F4   KOTI NIVRUTH
12841A05E1   B. HEMANTH REDDY

Description:

The proposed model in this paper is the intrusion detection techniques for mobile ad-hoc networks, which use collaborative efforts of nodes in a neighborhood to detect a malicious node in that neighborhood. Such a neighborhood of nodes is known as a clique. The technique uses message passing between the nodes. A node called the monitor node initiates the detection process. Based on the messages that it receives during the detection process, each node determines the nodes it suspects to be malicious and send votes to the monitor node. The monitor node upon inspecting the votes determines the malicious nodes from among the suspected nodes. The proposed intrusion detection system is independent of any routing protocol.

3. Greenhouse Monitoring System   Guide:Mr. G. Suresh Kumar

12841A05E0   PANDITA CHANDANA
12841A05C3   D.SHRUJALA RANI
12841A05F1   BODALA SOWMYA

Description:

In order to solve environmental parameters monitoring problem of the individual small-scale greenhouse, a wireless greenhouse environment monitoring system based on ZigBee technology has been proposed. The system uses SPCE3200 microcontroller as the core composition of data processing and monitoring terminals, it can control the CC2420 wireless data transceiver modules, also can receives commands from the host computer through the UART interface module; A variety of sensors in the wireless transmission module acquire Greenhouse multi-parameters which are sent to the data processing and monitoring terminals composed of SPCE3200 through the ZigBee. Processed data can carry on real-time display by LCD, but also can choose to send to the host computer or store in an external SD card. The results show that the system has a simple structure, low power consumption and lower cost; it is also able to meet the individual farmers on the effective monitoring of environmental parameters greenhouse management according to the test.

4. Smart Illumination System   Guide:Ms. S. Swapna

12841A0538   G AKSHAY KUMAR
12841A0549   M DURGA MOUNIKA
12841A0540   B ROHAN

Description:

A smart illumination system for greenhouses and growing rooms capable of controlling the quantity and quality of light emitted by a number of LEDs is described. The system uses lamps containing blue and red LEDs programmed to emit various spectra at sixteen different frequencies and ten different pulse widths. The performance of the system is evaluated by determining the effect of pulsed light emission at different frequencies with a pulse width of 50% on tomato plants (Lycopersicon esculentum). The results show that low frequencies have higher quantum efficiency in photosystem II compared to higher frequencies and continuous light. They also show that the electron transport rate decreases when the frequency of pulses increases.

5. Remote Controlled Desktop   Guide:Ms. S. Swapna

12841A1225   N V TEJASWINI
12841A1232   AKSHITH JOSHUA DAVID
12841A1202   GADHIRAJU SUSHMITHA

Description:

This project aims to develop an automated system to control all the operations of the key board and the mouse in order rescue the eyes of those who are sitting in front of the system for hours together. All the functions of the mouse and some of the functions of keyboard such as, a)directional keys (b) start window (c) close window (d) enter key can be controlled. To do all these operations, first we need to install the software which is designed as a front end application in .net.

6.Smart Switch   Guide:Ms. B. Malathi

12841A0529   PRIYANKA A
12841A0526   P KAVITHA
12841A0551   M ASMITHA

Description:

This paper presents a reliable, fast and simple system to detect and recover faults in computer networks at control center of power automation system. There is no way to get the information of the remote devices when networked system at control center fails. The proposed system makes use of the insertion of smart switch (SS) into the ordinary automation system of power utilities to keep the network devices work properly. The suggested system overcomes the drawbacks associated with another proposed system dealing with the same problem.

THANKS GIVING PARTY

All the final year students hosted a Thanks Giving Party for all the faculty members to express their affection and gratitude to commemorate their association with the college and all the faculty members. This tradition upholds   the beautiful bond that teachers and students share in their journey together .

7. A scalable and reliable matching service for content based publish/subscribe systems. Guide:Ms. Pranusha Reddy

12841A0567   D SAI BABU
12841A0564   BHURA ANUANJAN
12841A0570   GAJJALA SUNDEEP KUMAR

Description:

Characterized by the increasing arrival rate of live content, the emergency applications pose a great challenge: how to disseminate large-scale live content to interested users in a scalable and reliable manner. The publish/subscribe (pub/sub) model is widely used for data dissemination because of its capacity of seamlessly expanding the system to massive size. However, most event matching services of existing pub/sub systems either lead to low matching throughput when matching a large number of skewed subscriptions, or interrupt dissemination when a large number of servers fail. The cloud computing provides great opportunities for the requirements of complex computing and reliable communication. In this paper, we propose SREM, a scalable and reliable event matching service for content-based pub/sub systems in cloud computing environment.

8. Fall Detection   Android App   Guide: Mr. Veer Kumar

12841A05F3   PVSM RAVALI
12841A05G0   RAVINDER KUMAR SHARMA
12841A05G6   SHIKHA MALOO

Description:

Falls cause a very high risk to the elderly. This paper focuses on technology that would aid the elderly. These technologies include: Wearable- based, audio- based, and video-based fall detection systems. This paper surveys the literature regarding fall detection algorithms using those three branches and the various sensors they employ. Looking at wearable technology, the technology is cheap and accurate but inconvenient. Audio-based technology on the other hand is more convenient and is cheaper than video-based technology. However audio-based technology is hard to set up compared to video and wearable-based technologies. Video- based technology is accurate and easy to set up.

9. Secure auditing and deduplicating data in cloud   Guide:Mr. Y. Venkateshwarlu

12841A0595   VANJIVAKKAM GOVINDAN RAMCHANDRA
12841A05B1   MOHAMMAD SALMA
12841A05B3   PATANGE RAKSHITA

Description:
In this work, we study the problem of integrity auditing and secure deduplication on cloud data. Specifically, aiming at achieving both data integrity and deduplication in cloud, we propose two secure systems, namely SecCloud and SecCloud+. SecCloud introduces an auditing entity with a maintenance of a MapReduce cloud, which helps clients generate data tags before uploading as well as audit the integrity of data having been stored in cloud. Compared with previous work, the computation by user in SecCloud is greatly reduced during the file uploading and auditing phases. SecCloud+ is designed motivated by the fact that customers always want to encrypt their data before uploading, and enables integrity auditing and secure deduplication on encrypted data.

10. Stealthy denial of service strategy in Cloud computing   Guide :Ms. Jamuna Rani

12841A0581   MUNEGALWAR SAI KIRAN GOUD
12841A0577   M SANTOSH
12841A0578   MANDHADI PRAVALIKA

Description:

The success of the cloud computing paradigm is due to its on-demand, self-service, and pay-by-use nature. According to this paradigm, the effects of Denial of Service (DoS) attacks involve not only the quality of the delivered service, but also the service maintenance costs in terms of resource consumption. Specifically, the longer the detection delay is, the higher the costs to be incurred. Therefore, a particular attention has to be paid for stealthy DoS attacks. They aim at minimizing their visibility, and at the same time, they can be as harmful as the brute-force attacks. They are sophisticated attacks tailored to leverage the worst-case performance of the target system through specific periodic, pulsing, and low-rate traffic patterns. In this paper, we propose a strategy to orchestrate stealthy attack patterns, which exhibit a slowly-increasing-intensity trend designed to inflict the maximum financial cost to the cloud customer, while respecting the job size and the service arrival rate imposed by the detection mechanisms. We describe both how to apply the proposed strategy, and its effects on the target system deployed in the cloud.

11. Privacy preserving ranked multi keyword search for multiple data owners in cloud computing   Guide:Ms. G. Bhavani

12841A0589   APURI SHIVA KUMAR
12841A0594   UPPALANCHA BASANTH KUMAR
12841A05B6   VADAPALLI SIVASRINIVAS

Description :
In this paper, we propose schemes to deal with privacy preserving ranked multi-keyword search in a multi-owner model (PRMSM). To enable cloud servers to perform secure search without knowing the actual data of both keywords and trapdoors, we systematically construct a novel secure search protocol. To rank the search results and preserve the privacy of relevance scores between keywords and files, we propose a novel additive order and privacy preserving function family. To prevent the attackers from eavesdropping secret keys and pretending to be legal data users submitting searches, we propose a novel dynamic secret key generation protocol and a new data user authentication protocol. Furthermore, PRMSM supports efficient data user revocation. Extensive experiments on real-world datasets confirm the efficacy and efficiency of PRMSM.

12. Smart Water Management System
Guide : Ms. T. V. Ramanamma

12841A0546   J DIVYA PADMAVATHI
12841A0539   M V ANUSHA
12841A0552   P ANNAPURNA

Description :
Water is a vital resource for life, and for the economy. Nowadays, one of the most serious challenges to solve is to manage the water scarcity. The lack of standardization among producer's water ICT equipment hinders proper monitoring and control systems, resulting in low efficiency in water distribution and consumption, system's maintenance and improvement, and failure identification. In this paper we propose a smart water management model integrating Internet of Things technologies for decoupling decision support systems and monitoring from business processes coordination and subsystem implementation. The proposed smart water management model makes specific vendor equipment interoperable and manageable in a water management domain in a homogeneous way.

13. Context based diversification for keyword queries over XML data   Guide: Ms. S. Girija Rani

12841A0591   SAMA SUMAN REDDY
12841A0579   MANTHRI VAMSHI KRISHNA
12841A0565   CHINTHAKUNTLA HARITHA

Description:

While keyword query empowers ordinary users to search vast amount of data, the ambiguity of keyword query makes it difficult to effectively answer keyword queries, especially for short and vague keyword queries. To address this challenging problem, in this paper we propose an approach that automatically diversifies XML keyword search based on its different contexts in the XML data. Given a short and vague keyword query and XML data to be searched, we first derive keyword search candidates of the query by a simple feature selection model. And then, we design an effective XML keyword search diversification model to measure the quality of each candidate. After that, two efficient algorithms are proposed to incrementally compute top-k qualified query candidates as the diversified search intentions. Two selection criteria are targeted: the k selected query candidates are most relevant to the given query while they have to cover maximal number of distinct results. At last, a comprehensive evaluation on real and synthetic data sets demonstrates the effectiveness of our proposed diversification model and the efficiency of our algorithms.

14. MOBBI CARDS   Guide : Ms. T.V. Ramanamma

12841A05E2   S. SAI NAGA DEEPTHI
12841A05D7   M. CHARU NEHA
12841A05G2   M. GIRIDHAN UTKARSH

Description

It is helpful to design our own personal cards, business cards, etc., according to our interest layout design can also done using this app. We can also share designed cards with our friends through online mode.

15. Provable Multi copy dynamic data possession in cloud computing
Guide : Ms. M. Nirmala

12841A1212   MADDALI POORNIMA
12841A1230   N. KOTINAGENDRA NATH
12841A1227   M KOTESHWARA AVINASH
.
Description
In this paper, we propose a map-based provable multicopy dynamic data has the following features: 1) it provides an evidence to the customers that the CSP is not cheating by storing fewer copies; 2) it supports outsourcing of dynamic data, i.e., it supports block-level operations, such as block modification, insertion, deletion, and append; and 3) it allows authorized users to seamlessly access the file copies stored by the CSP. We give a comparative analysis of the proposed MB-PMDDP scheme with a reference model obtained by extending existing provable possession of dynamic single-copy schemes. The theoretical analysis is validated through experimental results on a commercial cloud platform. In addition, we show the security against colluding servers, and discuss how to identify corrupted copies by slightly modifying the proposed scheme.

16. A secure Anti -Collusion data sharing scheme for dynamic groups in the cloud
Guide : Ms. N. Nirmala Jyothi

12841A0576   KONGARI MEENA
12841A0584   NIPUN RAJ
12841A0590   PERUMANDLA SOWMYA

Description

In this paper, we propose a secure data sharing scheme for dynamic members. First, we propose a secure way for key distribution without any secure communication channels, and the users can securely obtain their private keys from group manager. Second, our scheme can achieve fine-grained access control, any user in the group can use the source in the cloud and revoked users cannot access the cloud again after they are revoked. Third, we can protect the scheme from collusion attack, which means that revoked users cannot get the original data file even if they conspire with the untrusted cloud. In our approach, by leveraging polynomial function, we can achieve a secure user revocation scheme. Finally, our scheme can achieve fine efficiency, which means previous users need not to update their private keys for the situation either a new user joins in the group or a user is revoked from the group.

17. Smart sprinkler system   Guide : Ms. Divya Rao

12841A0524   P ANISH
12841A0528   P.PRATHAP BHARGAV
12841A0541   N MANIKANTA SAI AKHIL

Description

This paper describes the design and implementation of a smart sprinkler system, utilizing a mesh capable wireless sensor network for monitoring and controlling field irrigation systems. Soil types and their characteristics with regards to water retention were investigated. The hardware and software for the sensor and sink nodes were implemented using the core of the WSN communication Xbee Series II Zigbee modules. A user interface to monitor the sprinkler system and change control parameters was developed. The system was tested for accuracy by comparing sensory field data with comparable data from alternative sensors from agricultural field test laboratories. It was successful in controlling the soil moisture levels in the test field by keeping the moisture levels between the desired thresholds. A relatively inexpensive way to automate water irrigation was established using low cost components for small scale irrigation applications.

WHO - Global action to halt rise in and improve care for people with Diabetes

The World Health Day is a global health awareness day celebrated every year on 7 April, under the sponsorship of the World Health Organization (WHO). It gives an opportunity for the organization to draw worldwide attention to a subject of major importance to global health each year. This year WHO is marking its annual World Health Day by issuing a call for action on Diabetes. In its first "Global report on diabetes", WHO highlights the need to step up prevention and treatment of the disease. The number of people living with diabetes has almost quadrupled since 1980 to 422 million adults, with most living in developing countries. Factors driving this dramatic rise include overweight and obesity. The complications of diabetes can lead to heart attack, stroke, blindness, kidney failure and lower limb amputation. So prevention is better than cure.
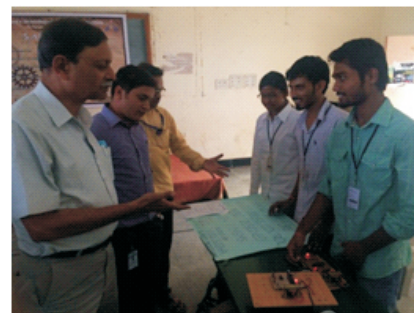
Electronics and Communication Engineering

1. Hand Gesture Based Wireless Control Of Robot Designed With Mems   Guide: Ms. VVNS Sudha

PURMA ANIL REDDY	12841A0430
BANDELA RESHMA	12841A0442
R SHASHIDHAR REDDY	12841A0449

Description: The interaction between man and machine has gained importance. Generally, some command inputs are given to control robot by pressing keys. In this project , one need not press any keys, instead by moving the hand in one direction i.e.., through hand gestures, the robot will also move in particular direction and is implemented using MEMS technology. It can be employed in wheel chair for disabled persons, military purposes, control of home appliances.

2.   GSM TECHNOLOGY USED TO ACQUIRE BUS INFORMATION   Guide: Ms. K. Sirisha

|	
Y G V N SAI JAIDEEP	12841A0493
KANDULA SOUMYA	12841A0479
MUTHINENI RAKESH	12841A0486

Description: The system designed here is very useful for the passengers those who are waiting at bus stops or any other place to catch specific number bus. As the bus is equipped with GSM based processor and whereas the bus stop is equipped with data transmitter, the passenger can identify that at what time the bus has reached its stage or stop. Based on this information, the passenger can estimate the position of bus. This can be achieved by sending SMS to the GSM installed in the bus. In this project system is developed for single stage, but for practical approach each and every bus stop must be equipped with the data transmitters and similarly each and every bus also must be equipped with the time processing unit. In this fashion all buses information can be acquired by calling them through mobile.

3. Investigate The Code Through Invisible Devices For Opening A Secret Door   Guide: Ms. VVNS Sudha

RAGIPINDI HARSHITHA	12841A0490
GUNDLAPALLY PAVAN	12841A0475
NYATHA DIVYA SREE	12841A0487
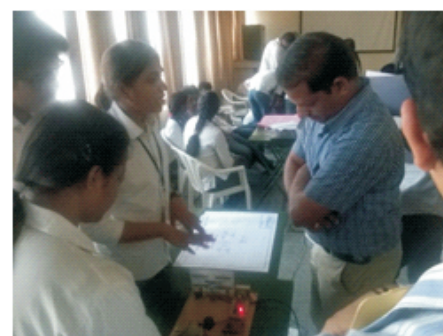
Description:The system is aimed to provide privacy protection, such that unauthorized persons cannot open the door under any circumstances. The concept is to locate & activate the magnetic switches one after another in a sequence through a piece of permanent magnet. The magnetic switches arranged inside the wall are invisible in fact, when a piece of magnet is brought very near to the switch, it will be activated. These kinds of switches can be arranged at different locations, only authorized user can identify the location of these switches. In addition these switches are supposed to be activated in a sequence in Symbolism manner, and then only the door will be opened. If the sequence is wrong, door will not be opened & alarm will be raised for a moment. The demo module is constructed with a sliding type of door mechanism & it will be driven through a DC motor. Wooden plank is used to simulate the wall which holds the door mechanism.

4. RFID Based Prepaid Card For Canteen Management System

PUNNA NIKHITHA-   12841A04L7   **Guide: Mr. Vinod Chavan**
B V VIJAYA KRISHNA DEEPIKA-   12841A04M8
VANGALI SAI KIRAN-   12841A04F8

Description: The main aim of this project is to produce the canteen bills using RFID cards. In this project canteen owner or canteen administrative person will give a RFID card to the user. The canteen owner needs to give the names of all food item present in the canteen and their cost to the engineer to write the code in microcontroller using Keil, Embedded c softwares. Prepaid RFID card for canteen project has a matrix keypad for recharge and this matrix keypad will be accessible only to the canteen owner. This RFID card card user can be a student in case of colleges and an employee in case of an organization or company. This system is very effective. Advantage of this system is that it is really helpful and effective for those people who have to go to canteen on daily basis. They need not carry cash. The user can recharge this card with a certain amount. A user (student/employee) needs to pay cash to the canteen owner to recharge this RFID card. User can recharge this card depending upon his/her requirements or usages.

5. Bluetooth Operated Robot With Parameter Monitoring On Android Mobile   **Guide: Mr. Vinod Chavan**

JUKANTI SANKEERTH KUMAR   12841A0418
GUDURI DIVAKAR   12841A0415
GANGADHARA VENKATESH   12841A0456

Description: There are times, when one needs to monitor some parameter like temperature or LPG gas and at the same time they are not able to go to the place where these parameters need to be recorded. Reason can be unfavourable conditions like high temperature, radioactive leakage and poisonous leakage. In such cases there is a need of robot which can be controlled through a remote and at the same time it should send the feedback to the user through wireless system. In this project, one can control the robot using bluetooth technology and the commands can be sent through the application installed in android mobile. The benefit of android mobile is that it can perform both functions. First function is to control the robot and second is to display the parameter values sent by the robot.

6. Design Of Area Efficient Low Power Reversible Logic Adder Using Hng Gate

RAMGIRI SHILPA JYOTHSNA 12841A0431   **Guide: Ms. N. Nirmala Devi**
S PRASHANTH KUMAR   12841A0432
D ASHOK KUMAR   12841A0410
SRUNGARAPU PRATYUSHA   12841A0435

Description:Reversibility plays a fundamental role when computations with minimal energy dissipation are considered. In recent years, reversible logic has emerged as one of the most important approaches for power optimization with its application in low power CMOS, optical information processing, quantum computing and nanotechnology. This research proposes a new implementation of adder in reversible logic. The design reduces the number of gate operations compared to the existing adder reversible logic implementations. So, this design gives rise to an implementation with a reduced area and delay. We can use it to construct more complex systems in nanotechnology.

7. Arm-7 Based Semi Autonomous Vehicle   Guide: Mr. M. Bijay Kumar

R SAI SIVA RAMA PRASAD	12841A04N4
B CHAITANYA REDDY	12841A04N4
ALIKATTE SHIVA KUMAR	12841A04N4

Description:The systems consist of GPS, GSM module, vehicle information RFID Tag and ARM7 embedded module. The radio frequency identification technology and the Global Mobile Communication Network are combined to propose an automatic wireless guarding system which reduces the rate of theft of vehicles. The system could identify the vehicle owner quickly and then realized the function of keyless entry and keyless start-up by using micro controller which is interfaced with RFID and GSM module. These interfaced modules along with vibration sensors, helps in monitoring function for the vehicles. GSM module already predefined for controlling the vehicle's states remotely, using the micro controller instructions, sets and dismisses the prevention of messages or calls. Comparing with the traditional system, this system extends the level of reliability and security along with better owner identification.

8. Distributed Arithmetic For Fir Filter Implementation On Fpga Guide: Mr. K. Satish Babu

G. KARTHIK REDDY	12841A04D3
J.PRASHANTH KUMAR	12841A04D6
PAVAR SUSHANTH	12841A04E8

Description: The implementation of FIR filters on FPGA based on traditional method costs considerable hardware resources, which goes against the decrease of circuit scale and increase of system speed. A new design and implementation of FIR filters using distributed arithmetic structure is used to increase the resource usage while pipeline structure is also used to increase the system speed. In addition LUT method is also used to decrease the required memory units. The simulation results indicate that FIR filters using distributed arithmetic can work stable with high speed and can save almost 50 percent hardware resources to decrease the circuit scale, and can be applied to a variety of areas for its great flexibility and high reliability.

9. Diffie Hellman Key Exchange Algorithm For Zero Knowledge Proof
Guide: Mr. K. Satish Babu

DAMMANNAGARI DEEPIKA	12841A04J 9
HARI PRIYA K	12841A04N0
SINGANABOINA SUNIL YADAV	12841A04M2

Description: The data transferred from one system to another over public network can be protected by the method of encryption. Diffie Hellman is not an encryption mechanism. Instead it is a protocol securely exchange the keys that encrypt data. Diffie-Hellman (D-H) key exchange algorithm was developed to exchange secret keys through unprotected channels. In this paper D-H algorithm has been modified into an interactive zero-knowledge proof protocol. The proposed protocol is designed to satisfy the zero-knowledge proof properties and resists the known attacks. That simply means the integers between 1 and p-1 are used with normal multiplications, exponentiation and division, except that after each operation the result keeps only the remainder after dividing by P.

10. Line Following Robot   Guide: Ms. K. Sirisha

CHINTA APARNA   12841A0469
AJMIRA CHARANTEJA   12841A0462
ERLAPATI SUSHMA   12841A0473

Description:The robot designed is intended follow the black line that is marked over a white floor. Infrared sensors are used for sensing the line, these sensors are arranged below the vehicle at front position. The infrared energy radiated from the IR LED will be absorbed by the black colour, if there is any deviation means when the vehicle runs from out of line, the IR energy hits the white floor and it will be reflected back. The IR sensor arranged side by the IR LED detects the reflected signal and sends this deviation information to the controller. Based on this signal, the controller drives the motors accordingly. For detecting the two sides deviation two sets of sensors are used. It is useful for many applications such as to acquire data from boilers, furnaces, ovens, power transformers etc., where human beings cannot stay for long time or reach.

11. FPGA Based High Speed Parallel Cyclic Redundancy Check
Guide: Mr. K. Satish Babu

BADDAM SHIRISHA   12841A04G2
GUMMI NIKHILA REDDY   12841A04G4
T AKHILA PRASHANTI   12841A04M3

Description: Error correction codes provide a mean to detect and correct errors introduced by transmission channel. Now we are going to implement this project using f matrix technique. In this f matrix algorithm first parallel input and generator polynomial are ANDed. Result of that will be XORed with present state crc checksum. The hardware implementation of this circuit is based on LFSRs. Parallel crc provides high throughput, takes less time. With increase in number of bits time will be reduced drastically upto 50%. CRC can be applied to data storage devices such as disk drive in order to check bits in each block. This can also be applied in both transmitter and receiver to detect errors in digital data.

12. Overspeed Detection On Highways Using Gsm Module   Guide: Mr. Vinod Chavan

CHILPURI VEDA PRAKASH REDDY   12841A0409
ADULAPURAM SHRAVAN   12841A0402
AAKAMGARI SAMPATH   12841A0401

Description: Now-a-days one hears news about accidents on highways very fre main reason of accidents is over-speed. In this project, three switches are use speeds. These switches are operated using three relays, which detect the vehicle vehicle speed. It also indicates user if vehicle's speed has crossed the maximum condition is indicated by turning on the buzzer and a message is sent to the conce GSM module.

13. Artificial Intelligence Based Video Capturing And Transferring
To Pc Using Robot   Guide : Mr. N.Pradeep Kumar

DODLE RAMYASWETHA   12841A0472
B SHRAVYA   12841A0405
DEVOLLA SRINIVAS   12841A0471

Description:The autonomous robot is an unmanned vehicle that runs in a field continuously by sensing an obstacle in the path. The microcontroller always measures the voltage giving by the sensor and whenever the obstacle occurs it takes a control action to turn into left/right direction and avoids colliding any object. It can be used for surveillance, navigation, pick and place robot.

Electrical and Electronics Engineering

1. Autonomous Agrobot Designed As Plant Watering System
Guide : G.Vijay Krishna

12841A0278 - M. AMULYA
12841A02A4- UNDI KIRAN
12841A0284- P. PRANAYA

Description:

In recent years, the development of autonomous vehicles in agriculture has experienced increased interest. This development has led many researchers to start developing more rational and adaptable vehicles. In the field of agricultural autonomous vehicles, a concept is being developed to investigate if multiple small autonomous machines would be more efficient than traditional large tractors. These vehicles should be capable of working 24 hours a day all year round, in all weather conditions and have the intelligence embedded within them to behave sensibly in a semi-natural environment over long periods of time, unattended, while carrying out a useful task. Now here is a module designed for watering the plants. For bigger plants like coconut, mango, etc., the total field need not be watered. Instead watering should be done where the particular plant is present. So our vehicle is equipped with water tank, which will identify where the plant is present and water it automatically. And whenever the tank is empty it comes to the home position by itself for refilling the tank. Such types of agricultural robots that can take self-decisions are called as autonomous AGROBOT's. Here we present a proto-type model of such robot, which does the above-mentioned things without any manual help.

2. Path Following Robot Used To Acquire Data From Hazardous Place
Second Prize Winner   Guide : G.Vijay Krishna

12841A0283- NIDHI KUMARI
12841A0270- DHEERAJ G.V.V

Description:

The Line follower robot is a mobile machine that can detect and follow the line drawn on the floor. Generally, the path is predefined and can be either visible like a black line on a white surface with a high contrasted color or it can be invisible like a magnetic field. Therefore, this kind of Robot should sense the line with its Infrared Ray (IR) sensors that installed under the robot. After that, the data is transmitted to the processor by specific transition buses. Hence, the processor is going to decide the proper commands and then it sends them to the driver and thus the path will be followed by the line follower robot. This robot is aimed to acquire digital data from dangerous places like chemical mixing plants where toxic gases are produced, radiation affected areas, power plants, Boilers, Furnaces, etc., where human beings cannot stay there for long time to collect the data. At these places, this Robot is quite helpful, which follows the line that is marked with black paint and reaches to the destination for collecting the digital data. Whenever the vehicle reaches its reference point (where the data is available), it is halted there &acquires the data through wireless link constructed with optical sensors. The acquired data is displayed through LCD arranged over the vehicle, & travels in reverse direction to reach its starting point where people are waiting to read the data. The Robot remains here until the start button is depressed.

3. Automatic Drilling Machine   Guide : G.Vijay Krishna

12841A0220   PAVAN KUMAR REDDY. M.
12841A0223   NAMPELLY AKASH
12841A0201   A. RAM GANESH

Description:

The machine designed to drill holes over metallic bars like Aluminum channels or pipes is quite suitable for the big industries. Particularly in the field of mechanical workshops, where fabricators are drilling holes at different places over a metallic bar/channel, initially they have to mark and drill the holes manually. In this process a lot of time is required to complete the job, more over human errors may be there generally, most of the drill machines used in the workshops having machine stands, these are spring loaded stands and some force is required to brought the drill machine towards the job for drilling purpose, in this regard lot of energy is required for continuous work. To avoid all this problems, this machine is designed, which drills the holes automatically, whenever the holes are required. The main purpose of the project is to improve efficiency, reduced time & to increase productivity. The drill data can be programmed through a keyboard interface with micro controller unit, entire machine is designed with three-motors. Stepper motor is used to bring down the drilling mechanism towards the job; induction motor is used to drill the hole. The drill data entered through the keyboard s displayed through the LCD.

4. Utilizing Solar Energy For Multiple Home Applications:
Guide : G.Vijay Krishna

12841A0207- BUSIREDDY MANASA
12841A0206- RODA SHIVALAL
12841A0229- R. SOMLAL NAIK

Description:

The system can be utilized for five important useful applications & is aimed to utilize solar energy; most of them are automated such that precious energy gathered from solar panel can be saved significantly. Solar panel & heavy duty battery is used to make the system as real working. The first & important application is to run a ceiling fan, for this purpose single phase supply is generated from 12V battery, latest technology is implemented such that fan speed can be varied very linearly by switching the power MOSFETS through PWM chip. Here high efficiency inverter is designed to minimize the energy losses. The second concept is to energize the balcony/corridor (outdoor) light automatically, this light is designed with 50 high glow LED's & by sensing the natural light through LDR, this light is designed as autonomous. The third concept is implemented in the kitchen, here an automatic exhaust fan is designed which is aimed to run by sensing the gas & other toxic vapor/smoke. The fourth concept is designed for bath room, because of forgotten bath room lights lot of energy is wasted every day. To avoid this problem, here using IR sensors & by sensing the presence of a person, this light designed with 30 high glows LED's is controlled automatically. The fifth concept is to charge the cell phone through solar power using charge control circuit.

5. Trapping & Utilizing Low Cost Non Conventional Sources For High Way Lighting System: Guide : G.Vijay Krishna

12841A0215 - K. SWETHA SREE
12841A0241- KOMPALLY VINAY
12841A0219- M.D. BABU

Description:
A prototype module is constructed with spring loaded type mechanical structure for speed breaker phenomenon, which is aimed to generate energy whenever some force is applied to its surface. A fan with four blades is constructed, which is aimed to generate energy whenever some force (wind energy) is applied to the fan by the movement of the vehicles. And finally a solar panel is also installed that traps the solar energy and converts it into electrical energy required for the lights. The energy generated from all these three phenomena is stored in a battery.

6. Digital Monitoring Cum Control Of A Power Transformer With Efficiency Measuring Meter   Guide : P. Vishnu

12841A0261- ADEPU.RAVALI
12841A0290- RIKKALA.SRIKANTH REDDY
12841A0265 -BHUKYA.SEETHARAM

Description:
We have different instruments for measuring the electrical parameters such as voltage, current, frequency, etc. But there is no such instrument that can measure the efficiency of a power transformer directly. Hence a system is designed with micro controller that measures the efficiency of a power transformer and displays the same in percentage. The system is designed to measure and display the other parameters like load current, line voltage, and T/F body temperature.Control circuit is implemented such that the transformer is protected from burning due to various reasons and fault condition will be displayed through LCD. As the system is intended to display lot of information simultaneously, two display sections are designed, with the help of one LCD parameter values and failure causes are displayed. Similarly with the help of another display, transformer efficiency with input and output powers are displayed.

7. Vector Group Detection And Reconfiguration Of Transformers   Guide: Mr. Devadas

12841A0236- ANDE VAMSHI
12841A0218 - KUMRA AKASH
12841A0239 - GOPICHAND DODDAKA
 Description:
Transformer is the most important components In the power system network .Whenever the parallel secondaries of two transformers belonging to different phasor groups come together then there will be circulating currents flowing between the two transformers. This leads to reduction in the load ability of the transformer, increased losses, overheating of the transformer & eventually leads to damage of the transformer if the circulating current are large. Load sharing of the transformer cannot be achieved fully if the secondary's are not banked .So to avoid this problem we are using this vector group detection method to avoid mismatch of the transformer. So by using same group transformers the secondary can be banked. In this project any transformer can be reconfigured to same vector group for secondary banking . We will be achieving reconfiguration on a real time prototype by taking four preset configuration as input which can be extended to any configuration further group in future use .

8. A Novel Technique For Reducing The High Fault Currents & Over Voltages And Enhancing The Security Of Electrical Power System Through Active Sfcl   --- Guide : P. Vishnu

12841A0273 - ANVESH KUMAR
12841A02A8 - VINEETH
12841A02A3 – SUPRETHA

Description

For a power distribution system with distributed generation (DG) units, its fault current and induced overvoltage under abnormal conditions should be taken into account seriously. elimination that is a big problem. The active SFCL can play an obvious role in restraining the fault current and overvoltage.It can contribute to avoiding damage on the relevant distribution equipment. It improves the systems safety and reliability.Applying superconducting fault current limiter(SFCL) may be a feasible solution, in this paper, the effects of a voltage compensation type active SFCL on them are studied through theoretical derivation and simulation. The active SFCL is composed of an air-core superconducting transformer and a PWM converter. During the study process, in view of the changes in the locations of the DG units connected to the system, the DG units injection capacities and the fault positions, the active SFCLs current-limiting and overvoltage suppressing characteristics are both simulated in MATLAB.

9. Comparison of Five Level and Seven Level Inverter THD's using Modified H-Bridge Inverter Guide : G.Vijay Krishna

12841A0269- DERANGULA SEKHAR
12841A0280- MALAVATH MAHESH
12841A0272- G.RADHA KRISHNA

Description:

Multilevel Inverters are very popular and have many applications in electric utility and for industrial drives. When these inverters are used for industrial drive directly, the Total harmonic distortion (THD) contents in output voltage of inverters is very significant index as the performance of drive depends very much on the quality of voltage applied to drive. In this project the THD contents of 5 and 7 level modified H-Bridge inverters have been analyzed using sinusoidal pulse width modulation (SPWM) technique. This modified version of H-Bridge inverter has reduced number of power devices or switches as compared to conventional H-Bridge multilevel inverter. Hence its cost and size is less. Also SPWM technique reduces THD content to a large extent. The models are simulated using MATLAB software. It has been found that the THD content in 7-level inverter is less as compared to that in 5-level inverter.

Inspiring Personality —

Babu Jagjivan Ram

Born: April 5, 1908, Chandwa
Died: July 6, 1986, New Delhi

Babu Jagjivan Ram, a Union Minister, freedom fighter and Dalit leader, was born in Chandwa village, present-day Bhojpur district of Bihar to a Dalit family. He was instrumental in foundation of the All-India Depressed Classes League, an organization dedicated to attaining equality for untouchables, He was the Defence Minister of India during the Indo-Pak war of 1971, His contribution to the Green Revolution in India and modernizing Indian agriculture, during his two tenures as Union Agriculture Minister are still remembered, He also served as the cabinet minister of Labour, Communications, Transport and Railways, Employment and Rehabilitation. He later served as the Deputy Prime Minister of India (1977–79).

Civil Engineering

1. Title : Pervious Concrete   Guide: A. Karthik

12841A0145   CHANDRAKANTH JADHAV
12841A0154   S AMMAJI
12621A0149   SAI KRISHNA MOTHE

Description: Pervious concrete (also called porous concrete, permeable concrete, and no fines concrete and porous pavement) is a special type of concrete with a high porosity used for concrete flatwork applications that allows water from precipitation and other sources to pass directly through, thereby reducing the runoff from a site and allowing groundwater recharge.

Pervious concrete is traditionally used in parking areas, areas with light traffic, residential streets, pedestrian walkways, and greenhouses. To prevent reduction in permeability, pervious concrete needs to be cleaned regularly. Cleaning can be accomplished through wetting the surface of the concrete and vacuum sweeping.

2. Title: Comparison of Manual And Staad G+4   Guide: K.Madhavi

12841A0130   PENDKAR RAMRAJ
12841A0119   KOTAGIRI VIJAY KUMAR
10841A0105   BODDU MURALI KRISHNA

Description: STAAD or (STAAD.Pro) is a structural analysis and design computer program bought by Bentley Solutions. The commercial version STAAD.Pro is one of the most widely used structural analysis and design software. It supports several steel, concrete and timber design codes. This software reduces the hardship analysis.

3. Title: Design Of G+5 Using Staad Pro   Guide: V.Rathna

12841A0112   DOMMATI PRASHANTH
12841A0146   KOOSA PRADEEP REDDY

Description: STAAD or (STAAD.Pro) is a structural analysis and design computer program bought BY Bentley Solutions. The commercial version STAAD.Pro is one of the most widely used structural analysis and design software. It supports several steel, concrete and timber design codes. This software reduces the hardship analysis.

4. Title: Cost Effective Low Volume Roads   Guide: V. Manikanta

12841A0158   C S ROHIT YADAV
12841A0136   TELU VARUN
12841A0114   GOPI KISHAN SANKLA

Description: A low volume road is commonly defined as a road that has an average daily traffic LOW-VOLUME ROADS BMPS: 3 (ADT) of less than 400 vehicles per day, and usually has design speeds less than 80 kph (50 mph). The information in this manual is applicable to rural roads, and most of the information is applicable to all types of roads, although high standard roads are not the emphasis of this manual.

### 5. Title: Q.S Primavera — Guide : D. Tripura

12841A0121 MANDHA PRASANNA
12841A0155 SARSAN AKSHAY REDDY
12841A0139 CHATLA ROHITH

Project description: A quantity surveyor (QS) is a professional working within the construction industry concerned with construction costs and contracts. A quantity surveyor differs from a building estimator in that a quantity surveyor is a formally trained and accredited professional (Bachelor's degree or higher) in the estimating field. Primavera software includes project management, product management, collaboration and control capabilities and integrates with other enterprise software such as Oracle and SAP's ERP systems.

6. Title: Design of Township Using Staad Pro — Guide: D. Ramachander

12841A0157 YEDLAPATI VENKAT SHIVARAM
12841A0101 A RITHIKA SINGH
13845A0104 Y RAMULU
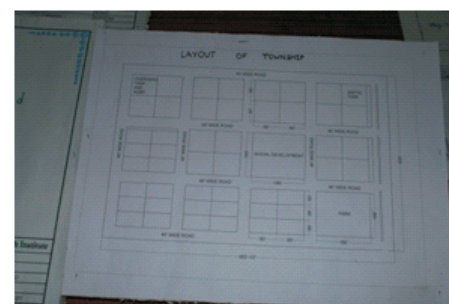
Project description: The concept of townships has arrived with a bang due to ever increasing housing demand. It is in huge demand by the elite rich. High end Amenities within the apartments is a part of package. The concept of a township embraces all the basics, the highly essential schools, hospitals and the much needed recreational facilities.
The commercial version STAAD.Pro is one of the most widely used structural analysis and design software.

7. Title: Road Construction Using Plastics — Guide: V. Manikanta

12841A0106 BALNE SAIKUMAR
12841A0103 ASAM AJAY KUMAR

Project description: The experimentation at several institutes indicated that the waste plastic, when added to hot aggregate will form a fine coat of plastic over the aggregate and such aggregate, when mixed with the binder is found to give higher strength, higher resistance to water and better performance over a period of time. Therefore, it is proposed that we may use waste plastic in the construction of Rural Roads.
The following types of waste plastic can be used in the construction of rural roads:
- Films (Carry Bags, Cups) thickness up to 60micron (PE, PP and PS)
- Hard foams (PS) any thickness
- Soft Foams (PE and PP) any thickness.
- Laminated Plastics thickness up to 60 micron (Aluminium coated also) packing materials used for biscuits, chocolates, etc.,

8. Title: Sand Replacement Using Slag Sand Guide: L.Aparna

12841A0113 GANESH KHATRI

Project description: Slag is the main by-product generated in the iron and steel industry. Slag is an eco-friendly material obtained as a residue of the industrial process which can replace river sand in the construction of buildings. Slag sand as an alternative to river sand will protect river banks and save the environment.

9. Title: Pre Cast Technology   Guide: S. Jaya Keerthi

12841A0133   ROHITH NAGULA

Project description: The concept of precast (also known as "prefabricated") construction includes those buildings where the majority of structural components are standardized and produced in plants in a location away from the building, and then transported to the site for assembly. In general, precast building systems are more economical when compared to Conventional multifamily residential construction (apartment buildings) in many countries.

10. Title: G + 2 Design Using Sap   Guide: N. Kranthi kumar

12841A0148   MACHAGIRI SAIKIRAN
12841A0122   MUDAM DHUSHYANTH
12841A0156   VOORA TARUN KUMAR

Project description: SAP ERP is enterprise resource planning software developed by the German company SAP SE. Business Processes included in SAP ERP include Operations (Sales & Distribution, Materials Management, Production Planning, Logistics Execution, and Quality Management), Financials (Financial Accounting, Management Accounting, Financial Supply Chain Management) and Human Capital Management (Payroll, e-Recruiting).

11. Title: High Strength Concrete   Guide: T. Pavan Kumar

12841A0148   MACHAGIRI SAIKIRAN
12841A0151   N.MAHESWAR REDDY
12841A0146   KOOSA PRADEEP REDDY
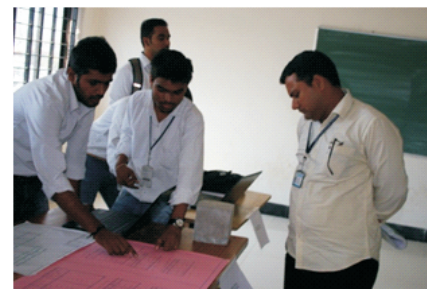
Project description: A versatile material, high strength concrete (HSC) possesses desirable properties other than high strength. HSC is specified where reduced weight is important or where architectural considerations require smaller load-carrying elements.
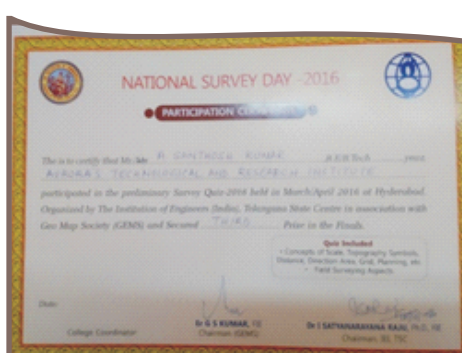
Quiz Programme

GEOMAP SOCIETY (GEMS) is a registered Society based in Hyderabad formed in 1990, with the purpose of creating awareness about Maps GIS – Geographical Information System Remote Sensing GPS and other map related technologies.

A Quiz (Prelims) was conducted in college campus on 7th April, 2016 and the best 10% of the performers were forwarded for further rounds. The duration of the quiz was 60 minutes and it was a written round. Among the Top 20% of the scorers qualified for the finals which was conducted on 10th of April 2016, the day which is observed as the National Survey Day.

II Semester students could utilize this opportunity. One of our students A.SANTOSH KUMAR of III-II semester won the third position.

Mechanical Engineering

1.Design and Manufacture of A Kart Using 4-stroke Petrol Engine
Guide: Dr.Sreenivas Thridandapany

Description: The students involved successfully achieved their aim of designing a safe and functional vehicle. They also successfully executed the secondary objective of enhancing the driver's comfort and safety along with increasing the performance and maneuverability of the designed vehicle. Since the project was a large undertaking further affected by time constraints, the project as a whole was divided into 4 core groups allotted to 4 different yet critical modules of development namely

|		
Design and fabrication of chassis-	D. VIVEKANANDA RAO	(12841A0361)
	AHMED ASIF ABBAS	(12841A0369)
	N.SAITEJA	(12841A0382)
Design and fabrication of Transmission system	B.KARTHIK SAI	(12841A0363)
	OMAR SHAHAB	(12841A0383)
	PRAFUL DESHPANDE	(12841A0386)
Design and fabrication of Braking system-	M.MUKESH	(12841A0381)
	V.SANJAY KUMAR	(12841A0395)
	P.SAI KUMAR	(12841A03A8)
Design and fabrication of Steering system	E.MANOHAR	(12841A0370)
	S.RAVI KUMAR	(12841A0390)
	D.AKSHAY	(12841A03A1)

The work done by the individual modules were then integrated into the final blueprint and the kart was assembled.

2. Conceptual Design And Making Of A Cartesian Plotter
Guide: Mr. Naveen Kumar .V

AVANTSA SRI SAILENDRA   (12841A0302)
LOLAM PRUDHVI RAJ   (12841A0318)
M.KRANTHI KUMAR   (12841A0319

Description: A Cartesian plotter is a printer of sorts used to produce vector graphics by the mechanical movement of a pen or any other such instrument across the surface of a piece of paper or screen. The project was aimed at creating the model of an automated plotter to produce images by moving a pen held by a structure (called as a frame) that can move the pen in two orthogonal directions. Apart from apart from meeting the primary objective of the project, the design makes use of stepper motors, micro controllers and required frame and guide ways to raise or lower the pen as required in order to create the desired image.Depending upon the horizontal and vertical feeds given to the motors, the relative motion of the pen produced in these directions gives rise to various patterns or shapes as required.
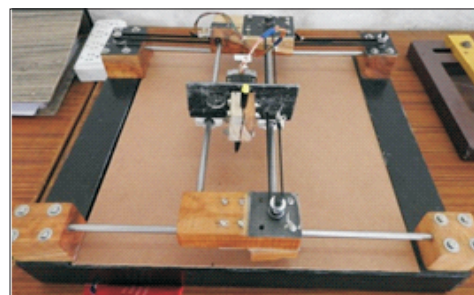
3. Programming of Product Palletizing By Using Robotic Arm   Guide: Mr. K.Sonu Kumar

Description: Product Palletization involves the movement of an object from initial point to final point by means of a robot arm. It involves programming the robotic arm for performing the necessary operations. In this project the students were successfully able to program a 7 axis robotic arm by using dynamotion software.
B.NISHTANTH REDDY   (12841A0367)
B.ANVESH   (12841A0367)
G.PRABHAKAR   (12841A0371)

4. Design of A Hydraulic Floor Crane   Guide: Mr. Pranav.R

SHAIK ABDUL RAHMAN ANSARI   (12841A03B7)
T.PRASAD   (12841A0392)
T.ANAND KUMAR   (12841A0393)

Description: In this project, the students successfully designed a hydraulic floor crane (U-Type) which is capable of lifting a load capacity of about 25KN. The project involved three modules-Design, Assembly and Analysis. CREO software was used for the purpose of design whereas the analysis was done by using ANSYS software. The work done in the project is tabulated as shown below:-

Module description	Work done
Design	Design of base part
	Design of vertical column
	Design of horizontal lever
	Design of hydraulic cylinder
	Design of wheels and bearing
Assembly	Assembly of all the components
Analysis	Analysis using Ansys

5. Green Fuels For Automobiles   Guide: Dr.Dilip Maha

S.MOUNICA   (12841A0331)
C.H.LOKENATH   (12841A0345)
P.SAIKRISHNA   (12841A0355)

Description: Green fuels are the fuels that are considered to be environment friendly. This project involves the successful study conducted on green fuels for automobiles. Comparison of conventional fuel and green fuel using automobiles are carried out and the engine and operation parameters are also analyzed.

6. Non Destructive Testing (ndt) On Pressure Vessel Equipments
Guide: Dr.Dilip Maha

KOPURI CHETAN   (12841A0376)
CHIMMULA SANDEEP REDDY   (12841A03A0)
VALLURI ABHISHEK   (12841A0394)

Description: Non Destructive Testing as the name suggests is an inspection process to test a component for failure without actually causing any damage or destruction to the component. In this project a pressure vessel is initially designed and manufactured as per industry norms and then this pressure vessel is subjected to Non Destructive Testing. In this particular project three types of NDT are conducted, Visual Inspection, Radiography (X-Rays) and Magnetic Particle Testing.

GUEST LECTURE

ECE dept, has successfully organised a guest lecture on 12th April 2016 in **DIGITAL SIGNAL PROCESSING** by **Mr.M.Shravan Kumar Reddy ,** Asscc Prof, AEC Bhongir. He pursued his M.Tech in Signal Processing from NIT Warangal, working in his areas of interests like Image Processing and Digital Image Processing .This lecture helped out students for the better learning of the curriculam and boosted their confidence levels.

Module	Work done
Design	Design calculations and analysis
	Design drawing using CREO software
Manufacturing	Rolling operation
	Bending operation
	Drilling operation
	Reaming operation
	Forging operation
	Welding operation
Inspection	Visual Inspection
	Radiography (X-Rays)
	Magnetic Particle Testing

7. Power Generation Through Shock Absorber　　　Guide: Mr. Pranav.R

B. SUNIL RAJ　　　　　　　　　　　　(12841A0398)
S. ANIL KUMAR GOUD　　　　　　　　(12841A03B1)
 K. SAI KUMAR　　　　　　　　　　　(12841A0306)

Description: The purpose of a shock absorber as the name suggests is to absorb shocks/vibrations. When a shock absorber is in action it absorbs some energy due to the shocks inflicted upon it. The aim of the project is to take the energy that is absorbed and convert it into useful energy, such as electricity. The setup in this project makes use of a shock absorber, rack and pinion arrangement and a dynamo. As the shock is absorber, the spring is compressed and the linear movement of the rack is converted into rotary motion due to which the pinion moves (As the pinion is meshed with the rack).This pinion is mounted on a shaft which is connected to the shaft of a dynamo. The rotary motion of the pinion is used to rotate the dynamo. This leads to the generation of energy. This energy can be used to charge the battery or for other vehicle accessories.

8. Design, Analysis And Manufacture Of Hand Roller Trolley　　Guide: Mr. V.Narsiah

RASOOR RAHUL　　　　　　　　　　(12841A0387)
JAMPU SANDEEP　　　　　　　　　　(12841A03A2)
PANKAJ KUMAR　　　　　　　　　　 (12841A03A9)

This project involves the successful design, analysis and manufacture of a hand roller trolley. It is a material handling device which can be moved manually or automatically in order to transport materials from one place to another. It is the most basic vehicle used in any manufacturing industry for transporting materials. The trolley designed as part of the project has a capability to carry a maximum of 120kgs The project work includes two modules. One for design and assembly of individual part, which was achieved using SOLIDWORKS. The other involves the Analysis of the designed components using ANSYS.

9. Design, Analysis And Manufacture Of Hydraulic Hand Pallet Trophy
Guide: Mr. V.narsiah

M. DHANUNJAI　　　　　　　　　　(12841A0377)
M. PRANESH KUMAR　　　　　　　　(12841A0378)
PAWAR BHAGWATH　　　　　　　　 (12841A0384

Description:The project involves the successful design, analysis and manufacture of a hydraulic hand pallet trophy. The design is made for an upper limit of 2000kgs.The project involves 5 modules namely, Designing of pallet trophy considering load capacity, Analysis of structure using static structural process, Selection of raw materials, Purchasing of materials and Fabrication.

10. Lighting System By Using Solar Panel   Guide: Mr. Ramulu

G. LAKSHMA REDDY   (12841A0373)
J. HARI BABU NAIK   (12841A0305)
P. RAJEEV REDDY   (12841A03B0)

Description:The project involves the design and fabrication of a solar lighting system which can make a 18 x 3 W lamp glow continuously for around 7 hours. Here, solar energy is collected with the aid of a solar panel and thus a battery is charged during the day with the help of a simple charging circuit. During night time, this stored energy can made use of for small scale lighting applications. The system has a panel to collect the sun's energy, a battery to store that collected energy and a light source to make use of it.

11. Lighting System By Solar Panels   Guide: Mr. Ramulu

A. PRIYATHAM REDDY   (12841A0362)
C. MAHESH   (12841A0368)
J. DINAY   (12841A03B3)

Description:The project objective is the same as the previous project but with the following addition. It makes use of a Light Dependant Resistor (LDR) which senses the light like one's eyes. It automatically switches off the light when the sunlight is made available. By making use of this system the consumption can be made more efficient.

12. Control Systems Of Pneumatic Circuits   Guide: Dr.Dilip Maha

BHUKYA VENKAT RAM   (12841A0362)
BANDI GOPALA KRISHNA   (12841A0368)
THODUPARAMBIL JOY EBI   (12841A03B3)

Description: Pneumatic controls in automated industrial processes are always essential to keep the process variables at the desired value for safety and economical operation. The control is achieved by using the pneumatic process control. In this project we design a prototype for a 'control system of pneumatic circuits' and test it for various activities such as shifting, lifting objects from one point to another and the response of the system during its function.

13. Solar Still   Guide: Mr. Ramulu

K. SAI BHARATH   (12841A0362)
M. PRANAY KUMAR   (12841A0368)
M. SHARATH KUMAR   (12841A03B3)

Description: The purpose of this project is to design a water distillation system that can purify water from nearly any source, a system that is relatively cheap, portable and depends only on renewable solar energy. Distillation is one of the many processes that can be used for water purification. Solar distillation is an attractive process due to the abundant availability o solar energy which is a renewable and also a clean source. The solar energy is used directly to evaporate the water inside a device called as a 'solar still'.

Faculty Achievements

N. Nirmala Devi , Assoc. Prof , Department of ECE, has attended the 5 day Faculty Development Programme on DC and FEC codes at NIT,Warangal from 11- 15April 2016.

14. Design, Fabrication And Analysis Of An Eco Kart
Guide: Mrs. M. Chaitanya

Description:The increase in pollution due to the emission of harmful gases from automobiles is affecting human health. Therefore, battery powered vehicles, which are eco-friendly, can be used instead of fossil fuel powered vehicles. The kart designed by using a battery and motor known as Eco-Kart. The complete project is divided into 4 subprojects, each dealing with a specific sub system of an Eco Kart. The individual sub systems are assembled to form a working model of an Eco-Kart.

Module		
Braking system	A. SRIDHAR	(12841A0301)
	B. SRINATH	(12841A0344)
	N. RANADHEER RAO	(12841A0352)
Steering system	B. RANJITH KUMAR	(12841A0303)
	B. BALA KRISHNA	(12841A0305)
	T. RAJKUMAR	(12841A0334)
Chassis	B. VISHNU VARDHAN REDDY	(12841A0308)
	G. BHANU PRAKASH	(12841A0311)
	T.VIGNESH	(12841A0356)
Power transmission	B. ASHWIN KUMAR	(12841A0307)
	G. VENU GOPAL REDDY	(12841A0313)
	T. MAHAVEER	(12841A0341)

15. Design And Fabrication Of Segway Guide: Mr. Mangesh Ratolikar

N. PAVAN KUMAR   (12841A0351)
 G.RAVITEJA   (12841A0358)
R. DIVYA JOSHNA   (12841A0329)
T. DATTENDAR KUMAR   (12841A0335)

Description:Segway PT is a two wheeled, self balancing , battery powered electric vehicle. It is a smooth transitional vehicle used as a personal transporter. This project involves designing the Segway using CATIA software taking certain parameters into account. The parts are designed individually and then assembled.

16. Analysis And Electronic Assembly Of Segway

I. MADHAV VARMA   (12841A0315)
 P. SRIKANTH   (12841A0328)
M. VENKAT KIRAN   (12841A0350)

Description: This project deals with the analyzing and assembling of the electronics for the Segway. The analysis of the Segway is done using SOLIDWORKS software. The system works on the inverted pendulum theory which is balanced using gyroscopic effect. Gyroscopic sensors are used to detect the change in balance and send the angle deflection to an Arduino board. Arduino board is a microcontroller which takes the input from the sensors and gives the proportionate output to the motor control board. The Arduino board is coded using the processing programming language which is an open source IDE. The parameters of force on various points of the system are analyzed for safety and balance. A SABRETOOTH motor control board is used to control the motors. Based on the input from the Arduino board, the motor control board regulates the motors with the required torque, speed and direction of rotation precisely. The power is taken from the batteries. The circuit is closed using a switch to ON and OFF. Steer switches are used for steering the system. Tilt sensors are used to adjust the sensitivity of tilt motion synchronization. The wiring is done to connect the electronics. Electrical wiring is done by soldering.

Project Expo Winners

COLLEGE LEVEL

Dept	Prize won	Names of the students	Name of the model
Civil	First	Chandrakanth jadhav S Ammaji Sai Krishna mothe	Pervious concrete
EEE	Second	Mr.Kiran Ms.Amulya Ms.Pranaya	Autonomous Agrobot'

DEPARTMENT LEVEL

S.No	Branch	Hall ticket No.	Student name	Project title	Remarks
1	CE	12841A0145	Chandrakanth Jadhav	Pervious Concrete	Ist Prize
		12841A0154	S Ammaji		
		12621A0149	Sai Krishna Mothe		
2	CE	12841A0130	Pendkar Ramraj	Manual Desing & STAAD Comparision	2nd Prize
		12841A0119	Kotagiri Vijay Kumar		
		10841A0105	Boddu Murali Krishna		
3	EEE	12841A0278	M. AMULYA	AGROBOT Designed as Plant Watering System (ᐧC):	Ist Prize
		12841A02A4	UNDI KIRAN		
		12841A0284	P. PRANAYA		
4	EEE	12841A0283	NIDHI KUMARI	Path Following Robot used to Acquire Data from hazardous place (mC)	2nd Prize
		12841A0270	DHEERAJ G.V.V		
5	ME	12841A0386	Praful Desh Pande	Design and Manufacturing o f 4-stroke Petrol Engine Car	Ist Prize
		12841A0369	Devara Vivekanada Rao		
		12841A0381	Mondeddula Mukesh		
		12841A0390	Sugamanchi Ravi Kumar		
		12841A0369	Ahmed Asif Abbas		
		12841A0382	N.Saiteja		
		12841A0363	B.Karthik Sai		
		12841A0383	Omar Shahab		
		12841A0395	V.Sanjay Kumar		
		12841A03A8	P.Sai Kumar		
		12841A0370	E.Manohar		
		12841A03A1	D.Akshay		
6	ME	12841A0302	Avantsa Sri Sailendra	Conceptual Design and Making of Cartesian Plotter	2nd Prize
7	ECE	12841A0430	Purma Anil Reddy	Hand Gesture Based Wireless Control of Robot Designed With MEMS	Ist Prize
		12841A0442	Bandela Reshma		
		12841A0449	R Shashidhar Reddy		
8	ECE	12841A0472	Dodle Ramya Swetha	Artificial Intelligence Based Video Capturing And Transferring To PC Using Robot	2nd Prize
		12841A0405	B Shravya		
		12841A0471	Devolla Srinivas		
9	CSE	12841A0524	P.Aanish	Smart Sprinkler System	Ist Prize
		12841A0528	P. Prathap Bhargav		
		12841A0541	N. Manikantha Sai Akhil		
10	CSE	12841A05F3	P.Ravali	Fall Detection	2nd Prize
		12841A05G0	Ravinder Sharma		
		12841A05G6	Shika Maloo		