

ARC - EEE **Technical** magazine is a platform for EEE students and faculty to express their creativity and showcase their literary skills. ARC is designed to present to its readers the technical events and technical papers that have been done and prepared by EEE students

# **EEE – TECHNICALMAGAZINE**

**Edition: 6** 

**March 2017** 

# DEPARTMENTOFELECTRICAL & ELECTRICAL ENGINEERING

Anil Neerukonda Institute of Technology and Sciences Sangivalasa, Visakhapatnam - 530062.

# **Editorial**

#### **Chief Patron**

Dr. G Raja Rao, Hod

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## **Student Members:**

Mr. M Harsha Vardhan Ms. B Yamini



The EEE Department at ANITS envisages attaining a position of national excellence for graduating students that have experienced implementing theory into practice and are capable of succeeding in higher learning up keeping ethical

To promote learning and research in the field of Electrical & Electronics Engineering and to advance and disseminate technical and professional knowledge in shaping young engineers into future human resource appropriate to the needs of our nation





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# PROGRAM OUTCOMES

**Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching 2 substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. Conduct investigations of complex problems: Use researchbased knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal 6 and cultural issues and the consequent responsibilities relevant to the professional engineering practice. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. Ethics: Apply ethical principles and commit to professional 8 ethics and responsibilities and norms of the engineering practice. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with 10 society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. Life-long learning: Recognize the need for, and have the

preparation and ability to engage in independent and life-long

learning in the broadest context of technological change.

# PROGRAM SPECIFIC OUTCOMES

- Design modern power system components to meet the identified needs within economical and environmental constraints.
- Design, simulation, fabrication and testing of power switching devices, electrical drives and their control for industrial and research applications.

# PROGRAM SPECIFIC OUTCOMES

- To prepare students with a strong foundation in basic sciences, mathematics and electrical engineering for productive engineering careers and enable them to pursue higher studies.
- To equip the students with good analytical and design capabilities to solve present day electrical engineering problems and to realize the necessity of life-long learning to excel in their professional careers.
  - To produce the students with strong communication skills and to foster the ability to work in multidisciplinary teams with a sense of environmental awareness, professional and ethical values.

# Message from HOD's Desk



I feel very elated and at the same time privileged to share a few words as you go through the pages of the magazine "ARC". EEE department endeavors to help students to seek the best from the surroundings. The knowledge thus gained becomes a ladder for them to soar into greater heights. It's often the collective effort that leads to the discovery and fulfillment of aspirations.

I feel proud to be a part of ARC an instrument in moulding the students. We try to shape every sphere of a student's personality in the EEE Department. I take this opportunity to express my sincere thanks to all the members of the faculty and auxiliary staff for their sincere contribution in making this Edition.

**Dr. G Raja Rao** Professor & HOD

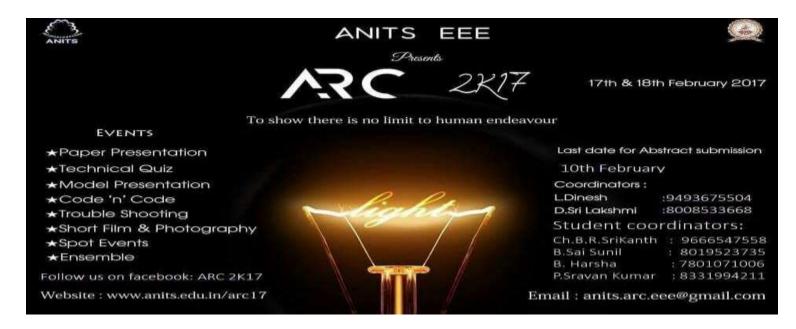
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# **AEEEA - ARC 2K17**

Anits Electrical & Electronics Engineering Association (AEEEA) was started in the year 2006-07. The Executive Committee, whose tenure is for one academic year, headed by the HoD of EEE as its Chairman consists of some faculty of EEE and some student members of final year and pre-final year of BE (EEE). The main aim of the Association is to assist the dept. in identifying the thrust areas and organizing the Workshops/Symposiums etc. It also helps in arranging Expert Lectures/Industrial Tours. It keeps a record of EEE alumni.

ARC2K17 is a national level technical symposium held at ANITS ENGINEERING COLLEGE conducted by the "ANITS ELECTRICAL & ELECTRONICS ENGINEERING ASSOCIATION(AEEEA)", Department of Electrical & Electronics Engineering. The vibrant and energetic title 'ARC' signifies the sparkling efforts of the participants. It provides the ideal platform for all the students to analyze themselves technically and present their skills. Its tagline "Joining elites" represents a special group of multi talented people and we felicitously invite you all to link up with the elite group and get the best out of it.



# **Paper Presentation:**

When you hear... You get to know....

When you see... You remember....

When you explain... You understand better...

This is true for may subjects experts. As a part of e-learning and to bring out the extent of concept realization by the students, a panel of technical support team will assist and scrutinise the Power Point Presentations as per the abstract submitted by the candidates. So, we welcome you to the dice of confidence and technical strength, i.e., Paper Presentations.

#### **Model Presentation:**

If you see anything...You wish to test it or represent it on a small scale... A power plant of solar energy portrayed on a bench or table.. Great.....

Bring that scientist with creativity....Concept...Knowledge and a desire of invention to the model presentations in this symposium....

# **Technical Quiz:**

EMF equation of a generator...??

Voltage across a load with high resistance connected to a 230 volts supply...??

Love being technical??

Ready to compete with peers who are also keen in learning about new things.... Brush up your subject toppers...

You can win the technical round... To all those who wish to test their knowledge about electrical and electronics...

We provide you the best stage.

## **Ensemble:**

During childhood...

We have different toys to play with...

As we grow up.....

We find a lot of things interesting around us...

Parents and teachers present us with storybooks and puzzles...

One such event is being hosted....A model is shown and materials are supplied....just a memory based event and how skillfully one can use his hands and creativity and solve the puzzle..

Time to assemble the available resources....

And we welcome you to this Event...

Ensemble...Assemble quickly to ensemble...



# **Trouble Shooting:**

"Every action has an equal and opposite reaction"

Newton discovered it regarding natural phenomenon....

But Power systems engineers say

"After every sequence of action, there will be definitely a proportional consequence"

When power is generated chances of losses and also chances of faults occur...

Engineer chooses techniques to rectify the faults and reset the system back to original operation...

Here a flaw will be embedded in the question and the participants are required to solve these flaws...

For time being let's enjoy as Analysis Engineers...

Welcome to Trouble Shooting.

## **Code N Code:**

In a language, "Certify" is given as "Burgivx"...Now can u guess what "Adjacent" in the same language is written????

This is as simple as finding logic behind the formation of words or something similar...

So a similar task of decoding or encoding a particular detail given as a question completely in sentence format... So this checks how u can code in technical software...

i.e., CodING and encoding event of this technical Symposium..

# ORGANIZING COMMITEEE

### STUDENT CO- ORDINATORS:

Ch. B R Srikanth (4/4 EEE)
B Harsha (4/4 EEE)
B Sai Sunil (4/4 EEE)
P Sravan Kumar (4/4 EEE)

### PAPER PRESENTATION COMMITTEE

Sai Vinod Karuna Varshitha Madhu Sai Sree Anusha spandana

### MODEL PRESENTATION COMMITTEE

T.Harish N. Rathna Sree K. Navya K. Mridula

# **ENSEMBLE COMMITTEE**

Asif B.Harisitha K.Anusha

## TECHNICAL QUIZ COMMITTEE

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# TROUBLE SHOOTING COMMITTEE

M.Divya Sree JJ.Sowmya Mahesh Manikanta S.Sri Hari

### CODE N CODE COMMITTEE

P.Pavani E.Jahnavi Maharana Kishore

K.Harish Krup

# 

# NON CONVENTIONAL ENERGY SOURCES FOOT STEP POWER GENERATION

S POOJA, EEE, Gayathri Vidya Parshid, Visakhapatnam

In this paper we have presented the design methodology of electrical power generation using foot step for urban area energy applications. Man has needed energy at an increasing rate for his sustenance and well being ever since he came on the earth. Due to this lot of energy resource have been exhausted and wasted. Proposal for the utilization of waste energy with foot power human locomotion is very much relevant and is very important for highly populated countries in INDIA and CHINA, where the roads, railway stations, bus stands and temples are overcrowded and millions of people moving around the clock. By using such principle the energy can be utilized in the whole area where the mechanical energy is being converted to electrical energy. This kind of technology can be used as the alternative electric power generator. It is impossible to replace the existing electricity generation, but at least to vary and reduce the dependency on the conventional electricity generation. Design concept used in this thesis is to use piezoelectric place at the walking area named as "Foot Step Power Generation System". When a human walking, jumping or dancing on the surface which contain the piezoelectric, it then will produce sufficient force for energy generation process. This system is very suitable applied at the public spotted area with many people such as walking corridor, shopping mall, in the office, schools and others. Therefore, the continued pressure will provide sufficient resources to be used to produce the electricity required.

With the increasing number of human in a country, human need and use the energy to do work or more to a place and well-being ever since existed millions years ago. As a result, many resources have been wasted with impurity. So, nonconventional energy is very essential at this time on our nation. In the human body there is a source of energy which is the process of human nutrition eat and drink every day and time. Humans need to use energy to perform daily activities such as doing work and running. Unconsciously, the energy used is actually one of the energy wastes. Walking is a common activity performed by a person in he or she's everyday life. When a person is walking, the energy will be reduced due to the weight transfer to the surface of the foot during walking. Therefore, the energy of the person from the foot step can be converted to the electricity energy. This device can be places where there is continuous human traffic such as in city mall, railway station platforms, city footpaths and other places, the electricity generated from these devices can be used for lighting.

# Super excitation and Flying excitation schemes of short circuit generators

- A powerful tool for the analysis of short circuit studies K.K.Anand Gopal ,Dept of EEE , MVGR College of Engineering, Vizianagaram

When lightning strikes a power transmission line, high over voltages are generated that might cause flashovers between the phases. This can lead to short-circuit. Short-circuit might also occur when the line falls to the ground due to heavy storms or severe ice-conditions. No matter what causes short-circuit it always results in a flow of huge currents of several kA in the

electrical network. The short-circuit currents impose high electromagnetically stresses on the network equipment. Therefore the high voltage equipment should be designed to withstand that high short-circuit currents without causing any damages to themselves. Hence, extensive tests are performed to verify short-circuit withstand capability. These high short-circuit currents are simulated on the electrical transmission and distribution equipment. Short-circuit currents up to 100kA can be achieved with help of specially designed high-power short-circuit generators. These generators are run by using a high power prime mover which is normally an electric motor.

During the short-circuit tests, the driving motor is disconnected electrically from the network supply and the mechanical energy stored in the rotating mass supplies the short-circuit current for the short duration of the test. The excitation current for and of the generators is supplied by a separate driven exciter consisting of a motor-generator set equipped with large flywheel. "Flying excitation" method which is used to provide the right value of test current and voltage The excitation system is a complex system and need to be properly set in order to satisfy the requirements of short-circuit testing. Therefore correct value of excitation time and an exciter voltage has to be chosen in advance to fulfil the criteria of short-circuit testing. The advantages and drawbacks of the super excitation scheme compared to the flying excitation are also discussed in the paper.

# Ocean energy with Giant Sea Snake( Pelamis Wave Energy Converter)

Anup Pravin Kachhap 14NU5A204 Chaitanya B 13NU1A0201

Last few years' development associated with low or even zero based greenhouse gas emitting energy sources is on its peak. More recently volatility in the price of oil and gas has increased the number of problems of low greenhouse gas emitting energy sources. Ocean waves are a huge, largely untapped energy resource, and the potential for extracting energy from waves is considerable. Our paper mainly concern's in this aspect to produce electricity with the lowest p/kWh with no-fuel and delivers power at round the clock without any pollution at 88% efficiency with 750Kw rated value .

## **ENERGY MANAGEMENT**

B. Bhagya sree, 3/4 EEE,ANITS

K. Hema, 3/4 EEE, ANITS

"Energy management" is a term that has a number of meanings, but we're mainly concerned with the one that relates to saving energy in businesses, public-sector/government organizations, and homes. Energy management includes planning and operation of energy production and energy consumption units. "Energy management is the proactive, organized and systematic coordination of procurement, conversion, distribution and use of energy to meet the requirements, taking into account environmental and economic objectives". When it comes to energy saving, energy management is the process of monitoring, controlling, and conserving energy in a building or organization.

# OPTIMIZATION TECHNIQUES IN THE POWER SYSTEM CONTROL

P Bhanu Prasad, P Ganapati, EEE, GMRIT, Rajam

In this paper we introduce some of the power systems control and operation problems. The management of the modern power system faces mainly optimization tasks. We show some single and multi objective optimization solutions, these are Decision making; Optimization of the schedule of renewable sources; Energy storage problems; Optimization of the network structure; Definition of the right power mix in single and also multi objective case, Regional energy trade. A large variety of applied technologies is described. In the industry the fast and robust methods are favored.

# **Energy management**

T Bhavya, T Uma, AU College of Engineering For Women-2/4 EEE

Energy management includes planning and operation of energy production and energy consumption units. Objectives are resource conservation, climate protection and cost savings, while the users have permanent access to the energy they need. It is connected closely to environmental\_management, production management, logistics and other established business functions Energy management is the proactive, organized and systematic coordination of procurement, conversion, distribution and use of energy to meet the requirements, taking into account environmental and economic objectives. It is something like perform the same amount of work with less energy that technique is consider as the energy efficiency. The electrical energy management group researches, designs, builds and test advance energy conversion system containing renewable energy, power electronics and electromechanical conversion systems and energy storage elements in order to optimize efficiency or power.

# STATE ESTIMATION IN POWER SYSTEM STATE ESTIMATION

KADA.CHAITANYA ,KADASARAPU SIVA SAI CHARAN, Dept of EEE,MVGR COLLEGE OF ENGINEERING

State estimation is a key Energy Management System(EMS) function, responsible for estimating the state of the power system. Since state estimation is a computationally expensive, it is not easy to execute it repetitively at short intervals, which is a requirement for real time monitoring and control. Hence in order to obtain a computationally inexpensive real time update of the state vector, tracking state estimation algorithms have been proposed and discussed in various research papers available in the literature. Tracking state estimation provides a fast real time update on the state of the power system without any physical modelling of the time varying nature of the system. Dynamic state estimation models the time varying nature of the system, which allows it to predict the state vector in advance. Hence proves to be a major advantage in security analysis and other control functions. Various techniques for tracking and dynamic state estimation are available in the literature. This paper presents a bird' view on different

methodologies and developments in both of these techniques based on our comprehensive survey of the available literature.

## POWER HARVESTING BY USING HUMAN FOOT STEP

D.SRAVAN chowdary, K.YOGESH, 3/4 EEE, ANITS

In this paper, some of the shortcomings in the existing system has been proposed to be rectified. The advances have allowed numerous ways for power harvesting systems in practical applications in order to meet the power demand. The use of piezoelectric crystal is to generate electric output from surrounding vibrations. Piezoelectric materials have a crystalline structure that they can convert mechanical energy into electrical charge and is vice-versa. These materials have the ability to absorb mechanical energy from their surroundings, usually ambient vibration, and transform it into electrical energy that can be used to power other devices. The produced electrical energy from the piezoelectric crystal is very low in the order of 2-3volts and is initially stored in a 2v rechargeable battery through a charge controller, since it is not possible to charge a 12V battery through crystal output. In order to increase the voltage, the boost converter circuit is used. The use of boost converter is to increase the level of voltage ranges about 12V and is stored in a 12V battery. In order to supply power to the load an inverter circuit is required by which the generated voltage is fed to the CFL lamp load. This project can be implemented in dense populated areas like railway station, bus stands etc where more amount of vibration energy will be obtained. In this paper, we discuss about many researches that has been performed in the area of power harvesting.

# ARM BASED SOLAR TRACKING SYSTEM

K. Sreenivasa Rao<sup>1</sup>, M. Mahesh<sup>2</sup>
Department of Electronics and Communication
Engineering, AITS, India)

Solar energy systems have emerged as a viable source of renewable energy over the past two or three decades, and are now widely used for a variety of industrial and domestic applications. Such systems are based on a solar collector, designed to collect the sun's energy and to convert it into either electrical power or thermal energy. In general, the power developed in such applications depends fundamentally upon the amount of solar energy captured by the collector, and thus the problem of developing tracking schemes capable of following the trajectory of the sun throughout the course of the day on a year. This project is designed with ARM7TDMI processor. The ARM7TDMI processor does the job of fetching the input from the sensor and gives command to the motor to run in order to tackle the change in the position of the sun.

# Bi directional dc-dc converter and charging circuit technology for electrical vehicle

M. Chandra Kala, Dept of EEE, IV th year M.V.G.R College of engineering

The Bi-directional DC-DC converter is the expansion of the traditional DC\_DC

converter. It is an effective way to solve the bidirectional power flow. Recently in the past 6 to 7 years many studies have been conducted o this area and one such application is the vehicular technology. With the advent of the power electronics the automobile industry is shifting it's gear to an whole new other direction i.e., pure EV .HEV (hybrid electrical vehicle) and PHEV plug in hybrid vehicles .Today major global electric vehicles have their ev's exceeding up to 120k. In this paper we will discuss different converter topologies which are existing and we will discuss specifically one converter topology.

# WIRELESS POWER TRANSMISSION USING TESLA COILS

CH.TEJASWI, P.HARITHA, 2/4 Dept of EEE, ANITS

The major objective of this project is to build up a device for wireless power transfer (WPT). Wireless power transfer can make an extraordinary change in the field of the electrical engineering which eliminates the use of conventional copper cables and current carrying wires. WPT is based on strong coupling between electromagnetic resonant objects to transfer energy wirelessly between them. The tuned magnetic fields generated by the primary coil can be arranged to interact vigorously with matched secondary windings in distant equipment but far more weakly with any surrounding objects or materials such as radio signals or biological tissues. But for very long distances, microwave transmission is used for the effective transfer of power.

# FLYING ELECTRIC GENERATOR

S.Kesava Rao<sup>1</sup>, N.vamsi Krishna<sup>2</sup>EEE, GMRIT, Rajam

High Altitude Wind Power uses flying electric generator (FEG) technology in the form of what have been more popularly called flying windmills, is a proposed renewable energy project and implementation over rural or low-populated areas, to produce around 12,000 MW of electricity with only 600 well clustered rotorcraft kites that use only simple autogyro physics to generate far more kinetic energy than a nuclear plant can. According to Sky Wind Power; the overuse of fossil fuels and the overabundance of radioactive waste from nuclear energy plants is taking our planet once again down a path of destruction, for something that is more expensive and far more dangerous in the long run. FEG technology is just cheaper, cleaner and can provide more energy than those environmentally unhealthy methods of the past, making it a desirable substitute/alternative. The secret to functioning High Altitude Wind Power is efficient tether technology that reaches 15,000 feet in the air, far higher than birds will fly, but creating restricted airspace for planes and other aircraft.

## NON-CONVENTIONAL ENERGY RESOURCES

Andaluri Devi Priyanka, Gostu Sravani Susmith, AU College of Engineering for Women

Energy plays a major role in the modern society. So the use of energy in the correct way, decides the development of area .Mainly non conventional energy resources consists of wind energy, tidal energy, solar energyetc.,The use of new technology in developing these resources by youngsters makes INDIA GLORIOUS.

# SMART GRID TECHNOLOGIES: COMMUNICATION TECHNOLOGIES AND STANDARDS

R. Upendra<sup>1</sup>, p. vinay kumar<sup>2</sup>, GMRIT, Rajam

The smart grid is the integration of Electrical &digital technologies, information and communication which facilities integration of business processes and systems to yield real measurable value across the power delivery chain. It is an intelligent future electricity system that connects all supply, grid and demand element through a communication system. Smart grid deliveries electricity to consumers using two-way digital technology that enable the efficient management of consumers, efficient se of the grid to identify and correct supply-demand imbalances. Smart grid solutions enable utilizes to increase energy productivity and power reliability while along the customer to manage the usage and costs through real time information exchange. It impacts all the components of the power system like generation, transmission and distribution.

# WIND TREE

K. KAVYA, K.SIRISHA 2/4 E.E.E, ANITS, SANGIVALASA

The wind tree, a 3-meter-tall generator designed for urban environments which makes the most of smaller air currents. Operating in near complete silence, the wind tree consists of 72 micro turbine "aero leaves" that rotate in the wind, generating an estimated 3.1 kw of power. The wind tree uses tiny blades that are housed in the leaf units. The blades turn inwards, which enables the units to turn in the wind, regardless of wind direction. The current prototype of the tree is steel and the energy made from it goes into the electricity grid and can be used locally. The wind tree uses tiny blades that are housed in the leaf units. The wind tree is small, aesthetically pleasing, silent, and requires very low wind speeds to generate energy. To make the device even more fitting for populated areas, it is designed to look like trees. Although general wind turbines can generate 5-6 kw, their large size means they require strong winds to get moving, meaning they generate power for fewer days a year where as with the artificial leaves serving as micro-turbines spinning on a vertical axis, the wind tree is designed to harness more gentle winds. The developers say this can extend to breezes blowing as slowly as two meters per second, making the turbine useful across more than 280 days of the year.



Thermal Power Plant Model made by 4/4 EEE Students on the Occasion of ARC2K17



Wind Turbines working model made by 3/4 EEE students, ANITS

# IE(I) STUDENT CHAPTER

The Institution of Engineers (India) which came into being on the September 13, 1920 is the result of general desire of those engineers in India who are members of the great parent Institution in England — the Institution of Civil Engineers, Mechanical Engineers and Electrical Engineers, to form a corporate body which should protect their interest, provide means of exchange of views on professional engineering matters and medium of expression of authoritative opinions on engineering problems of public interest.

#### **EVENTS:**

- 1. An event "Ensemble (Thermal power plant model)" was organized through IE(I) student chapter, ANITS on the eve of Engineer's day. Around students have taken part in the event.
- 2. An event "Model Presentation" was conducted through IE(I) student chapter, ANITS. Around students have participated in the event

# **CODING CLUB**

Students club \*CODING AND DESIGN\* was inaugurated by Prof.G. Raja Rao garu on 15-09-2015. College clubs plays an important role for the professional growth of young engineers. Students can make use of this platform to expose their talents and innovative abilities in the field of Electrical & Electronics Engineering (EEE). This club is formed to improve the coding knowledge.

### **EVENTS**

# 1. Design of logic and electrical circuits in MATLAB software

A design contest is organized in EEE department through CODING AND DESIGN CLUB to develop the design skills in MATLAB software on 15<sup>th</sup> July, 2016. Around 50 students have participated in the event. The contest aims to develop the design skills in "MATLAB SOFTWARE". First prize is awarded to Ch.Ajay dileep (316126514128) and second prize to Ch.Anusha (316126514132).

#### 2. CODE N CODE

A coding contest is organized in ARC event through CODING AND DESIGN CLUBto develop the coding knowledge in students on 7<sup>th</sup> Feb, 2017. The contest aims to develop the coding knowledge in the students. Around 22 students have participated in the event. First prize is awarded to G.Yashwanth (316126514136) and second prize to B.Srinivas (316126514125).

# **GUEST LECTURES**

A guest lecture on "Career Opportunities" was organized for third year EEE students on 29<sup>th</sup> July 2016. The resource person is Sri P.Ramesh, Ace institute of engineers, dwarakanagar, Visakhapatnam who has 12 years of experience in the areas of Process and Project Management, Delivery Operations, Team Management and Planning elaborated the scope of engineering career, short term goals, importance of higher education and so on. An interactive session was also conducted that provoked curiosity among the learners.



A guest lecture on "Real Time Modern Grid Operation and Management" was organized for final year students on 24<sup>th</sup> August, 2016. The resource Person is Sri A Ramesh, DE (Load Dispatch), APTRANSCO, Hyderabad. He delivered how modern grid operation is helpful tool to reduce power demand quickly when non renewable energy power generation dips and how to handle digital and computerized equipment and technology depended on it.



A guest lecture on "Career Opportunities and Higher Education in India and Abroad" was organized for final year EEE students on 13<sup>th</sup> September, 2016. The resource person Mrs.swetha reddy, Nec educational consultancy, Visakhapatnam who has 15 years of experience in the areas of career planning for higher studies in India and abroad. She delivered in what fields electrical engineer can build up their career both in jobs and higher opportunities.

# STUDENT ACHIEVEMENTS AND INDUSTRIAL VISITS

Y. Tejaswini, has presented the paper on "Conversion of environmental waste to energy" in STEPCONE-17 GMRIT, during 27th -29th Jan 2017 and got the first place in best presentation.

Gopisetti Srujana, has presented the paper on "Conversion of Environmental Waste to Energy" in STEPCONE-17 GMRIT, during 27th -29th Jan 2017 and got the first place in best presentation.

Kanithi Harika, has participated on "Technical-Quiz" held in STEPCONE-17 GMRIT during 27th -29th Jan 2017 and got the first place in best presentation.

Sunkara Sribharat, has participated on "Blind Coding" held in EKARTHA-17 GVPE during 8th-10th March 2017 and got the third place.

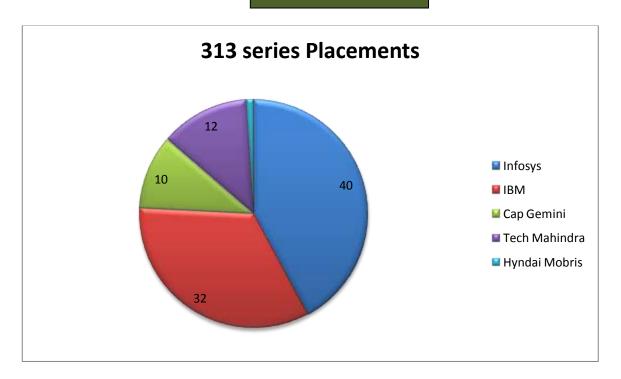
Bandaru Sai Sunil, is participated on "Blind Coding" held in EKARTHA-17 GVPE during 8th-10th March 2017 and got the third place.

On March 4th ,2017, around 63 students have visited NAVAL exhibition in NSTL to view the exhibits of various naval warships, under water missiles accompanied by the Mr. V Anil Kumar, Asst Prof, and Ms. D Sri Lakshmi, Asst Prof.

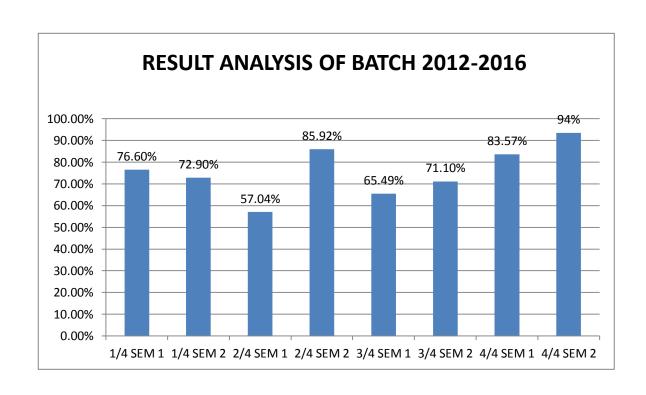


Fresher's Day programme was organized by the 2<sup>nd</sup> year students on July 28<sup>th</sup> 2016 to welcome the first year students. Third year and final year students interacted with the students.

# **PLACEMENTS**



# RESULT ANALYSIS



# NSS CLUB ACTIVITIES

## 1. YOGA FOR HOLISTIC HEALTH & WELL BEING-11/02/2017

The NSS Unit of ANITS conducted the event in a well-organized manner and the faculty and students from various departments actively participated in this event. The principal and the HoD of Chemical and ECE inaugurated the event. The principal of ANITS addressed the gathering and said that yoga is a way of one's life style. It has a clear influence on person mental and physical health. Good number participants attended the event and practiced some simple asana in the central auditorium.



Session inauguration by Principal, HODS and Students

## 2. MEGA HEALTH CAMP-1/10/2016

The Lions Club, Vizag and RACE student body of ANITS, taken an initiative to support rural people health, conducted a mega health camp at nearby village Chittivalasa. The medical camp was organized with the support of college management. The camp includes Blood Pressure, Diabetic check-up, eye check-up, dietary counselling and physical consultation. Medicines are distributed freely for some of the health problems and advised for further investigations.NSS volunteers helped in registration and medical cards, which were issued to the teaching and Nonteaching staff. There was an excellent response to the medical camp. More than 160 patients took benefit of free consultation. Medical camp ended at around 4:00 P.M. At the end, all went away very happy – both the patients and the team of doctors



NSS Volunteers of ANITS at Mega Health Camp, Chittivalasa Government School

## 3. YOGA EVENT- 21/06/2016

This NSS unit ANITS conducted a yoga event of International Yoga day in ANITS campus. NSS Units of ANITS was celebrated a festival of yoga and wellbeing on the occasion of international yoga day with great enthusiasm. 50 participants took part in that event. All the NSS Volunteers, teaching and non-teaching staff members of the institute, and students participated in the event. Participants of all age groups participated in the event with great enthusiasm. A yoga trainer accompanied by 2 trained volunteers was there to conduct the yoga practice.



Student and faculty participants at Central Auditorium, ANITS on International Yoga Day 2k16

#### 4. SAVE WATER -27/07/2016

UTOO CAN club, department of Mechanical Engineering students has conducted Awareness Camp "Save Water" in local village Chittivalasa in association with GVMC Visakhapatnam. By this program villagers learn water conservation, water recharging &saving of water. It was attended by NSS Program Coordinators and more than 20 student volunteers. Students showed their active participation in this program.



Students and faculty Volunteers at SAVE Water Campaigning

### **5. SEMINAR ON VANAM MANAM - 10/08/2016**

NSS unit, ANITS conducted student seminar on VANAM MANAM and all the student fraternity took active participation. Tree plantation program was inaugurated by planting a sapling by our honorable Principal with well worshiped in the name of God. Staff member, students & NSS team actively participated in the program and many trees were planted at various places with in campus as, in front of administration and electrical department, besides EC and civil department, near to Mechanical department, boys & girls hostel's ground.



Plantation by Hon. Principal on the eve of VANAM MANAM Semina

# 6. BLOOD DONATION CAMP IN ASSOCIATION WITH LIONS CLUB - 10/08/2016

NSS unit, ANITS in association with Lions Club, Vizag conducted blood donation camp in the campus and the participant's number was nearly double to previous year (2015-16). ANITS NSS team in association with Lion Club, Vizag conducted blood donation camp in the campus on the grounds of humanity. Students and faculty members in large members has participated in the event and donated blood. Fruits and nutritional beverages were distributed to those who donated the blood. The principal of the college has visited the camp, gave his view on importance of blood donation and appreciated the students and staff who have participated in the event. At the end of

the event all blood sample units are handed over to lions club.



Student registration at blood bank camp

# 7. SWACHH ANITS - 13/08/2016

The college NSS unit has conducted a "SWACCH ANITS" campaign to create awareness on "clean and green" which is inaugurated by the beloved Director.150 students of the college have stood up and taken initiation to clean all the surroundings and participated in a rally in engineering and medical college campus to create mindfulness about clean premises. At the end of the event principal appreciated all volunteers and students for organizing this event in good manner.



**Active Participants of SWACH ANITS 2K16**