VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN
(Approved by AICTE, Affiliated to JNTU, Hyderabad)
KONDAPUR VILLAGE, GHATKESAR MANDAL, RANGA REDDY DISTRICT - 501 301.

NEWS LETTER

TECHINNOVATION

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Volume - 5

" Design is not just what it looks like and feels like. Design is how it works. " – Steve Jobs

So we can conclude- Audio Spotlighting really "put sound where you want it" and will be "A REAL BOON TO THE FUTURE."

EDITORIAL DESK

Hello!!! We are happy to welcome you all aboard the fledgling 5th edition for the scintillating year 2017. TECHINNOVATION is the newsletter of the ELECTRONICS & COMMUNICATION ENGINEERING which aims to bring forward the buzz from the department in the past few months. The edition demystifies the realms of Electronics & Communication Engineering and also provides insight to the latest technology adopted in the field. Hope our deeds would ignite everyone's life!!!

HOD'S DESK

It is a theme of happiness to articulate with all of you Through this 5th newsletter. Within these pages you will Find much news related to Diverse activities from the Whole faculty and students Of ECE department. I am cheerful for the initiatives taken by the faculty to disseminate knowledge by organizing various activities in the department. I hope everyone will find this news letter Exciting and interesting.

ECE DEPARTMENT

Department of Electronics and Communication Engineering was started since the inception of VIGNAN'S Institute of Management and Technology for Women during 2008 with an initial-intake of 60. The strength was enhanced to 120 during 2005. The Department had added Post graduate program in VLSI during the year 2012 and Embedded Systems during 2014 with an intake of 18 each. The Department is headed by well qualified

VISION

To transform the students into technologically competent professionals, with abilities to address the societal challenges of the time through innovative technical practices in electronics & ommunication engineering

MISSION

M1: To foster inquisitive-driven advanced knowledge building among students for reinforcing the domain knowledge, develop capabilities, skills and solve complex engineering problems

M2: To prepare industry-ready graduates for global Electronics as well as communication based engineering companies by conducting training programs, workshops and industry visits.

M3: To build leadership qualities, research aptitude among students for the contribution of economic and technological development in cutting edge technologies in national and as well as in the global arena.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

PEO1: To develop the student's ability on technical concepts to design, simulate, and synthesize various electronic and communication circuits & systems for their research advancements.

PEO2: To impart analytical skills and to prepare the students excel in applying state of the art hardware and software tools to solve complex engineering problems for R&D, Industry and societal requirements.

PEO3: To prepare students to work in teams, take independent decisions and integrate engineering issues for successful career in multi-disciplinary environment.

PEO4: To promote entrepreneurship among the students to become successful entrepreneurs with professional ethics.

PROGRAM SPECIFIC OUTCOMES (PSOS):

PSO1:1. Professional Skills Ability: Identify, design electronics & communication circuits and conduct experiments with electronics & communication systems, analyze and interpret data, formulate and solve electronics & communication engineering problems.

PSO2: Industrial Skills - Ability: Design digital and analog systems, algorithms, firm ware, modern engineering tools, software, etc. as per needs and specifications and work in laboratory and multidisciplinary tasks.

PSO3: Ethical and Social Responsibility: Communicate effectively in both verbal and written form, will have knowledge of professional and ethical responsibilities and will show the understanding of impact of engineering solutions on the society and also will be aware of contemporary issues

FACULTY TECHNICAL ARTICLE BY

The Article Name:
"ELECTRONIC TOLL COLLECTION " Written By
VIJAY KUMAR URKUDE

STUDENT TECHNICAL ARTICLE BY

The Article Name:
"AUDIO SPOTLIGHTING "
Written By MADHURI SWAPNA

INDUSTRIAL VISIT

- MEDHA SERVO DRIVES PVT.LTD.
- SIGMA MICRO SYSTEMS
- NFC MOULI ALI

PLACEMENT TRAINING PROGRAMME IN ASSOCIATION WITH TASK & YGK ACADEMY

- POP SESSION
- CAREER GUIDANCE
- COMMUNICATION & LANGUAGE SKILLS
- TECHNICAL CONTEST
- PROFESSIONAL DEVELOPMENT PROGRAM
- MOCK DRIVE
- TECHNICAL TRAINING PROGRAM

ECLATZ CLUB ACTIVITIES

NSS ACTIVITY : NSS - activity throught Keessar was distillation of rural ponds and cleaning village canals promoting availability of clear water

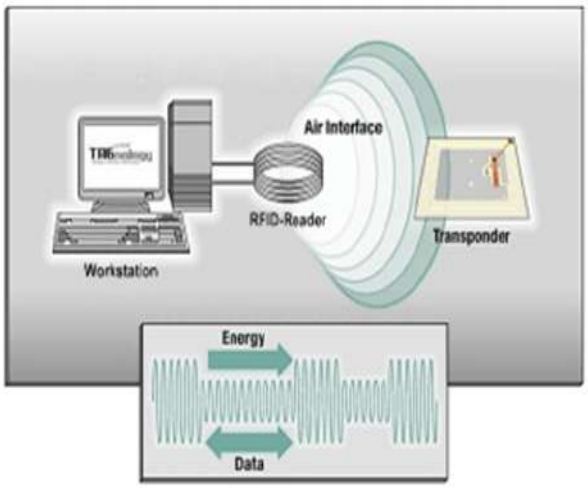
BOLT FROM THE BLUE : was Conducted in the month of December by the ECE Department to check the practical & Theoretical knowledge of students.

Faculty Technical Article : Title - " ELECTRONIC TOLL COLLECTION "

Written by VIJAY KUMAR URKUDE

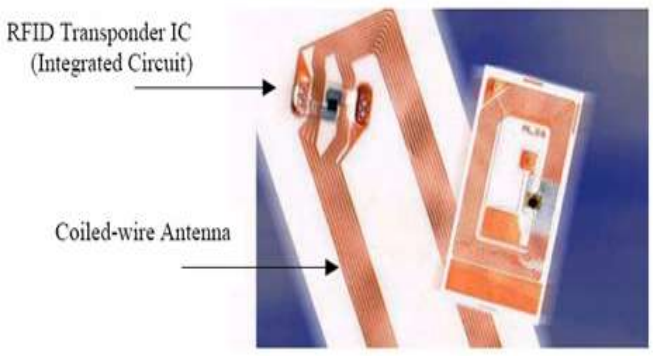
Introduction

Electronic Toll Collection is a generally mature technology that allows for electronic payment of highway tolls. It takes advantage of vehicle-to-roadside communication technologies to perform an electronic monetary transaction between a vehicle passing through a toll station and the toll agency. This project is implemented using the innovative technology of Radio Frequency Identification (RFID). RFID is a wireless link to uniquely identify tags. These systems communicate via radio signals that carry data either unidirectional or bidirectional. The tag is energized by a time-varying electromagnetic radio frequency (RF) wave that is transmitted by the reader. This RF signal is called carrier signal. When tag is energized the information stored in the tag is transmitted back to the reader. This is often called backscattering.



Conclusion and Future Scope

The electronic toll Collection systems are a combination of completely automated toll collection systems and semi-automatic lanes. Various traffic and payment data are collected and stored by the system as vehicles pass through. The different technologies involved are logically integrated with each other but remain flexible for upgrades. They also include sophisticated video and image capturing equipment for full-time violation enforcement. So this basic arrangement developed by us will applicable for the future developments in road transport by proper modifications. RFID systems have a secure place in the automatic identification sector. The system can made free from the challenges and will be cost effective in near future.

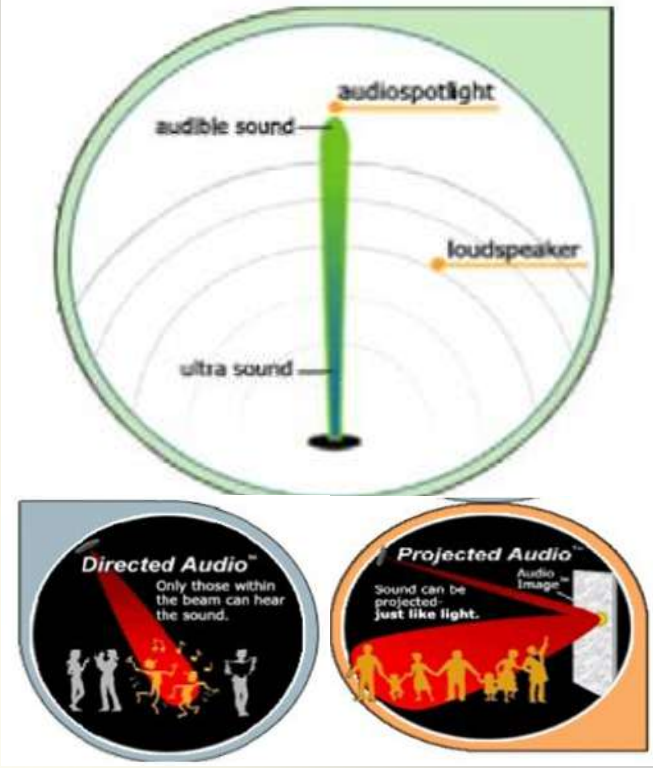


Student Technical Article : Title - " AUDIO SPOTLIGHTING "

Written by GOWTE LAVANYA

Introduction

Audio spot lighting is a very recent technology that creates focused beams of sound similar to light beams coming out of a flashlight. By 'shining' sound to one location, specific listeners can be targeted with sound without others nearby hearing it. It uses a combination of non-linear acoustics and some fancy mathematics. But it is real and is fine to knock the socks of any conventional loud speaker. Audio spot lighting is a very recent technology that creates focused beams of sound similar to light beams coming out of a flashlight. By 'shining' sound to one location, specific listeners can be targeted with sound without others nearby hearing it, i.e. to focus sound into a coherent and highly directional beam. It uses a combination of non-linear acoustics and some fancy mathematics. But it is real and is fine to knock the socks of any conventional loud speaker.



Conclusion and Future Scope

"Being the most radical technological development in acoustics since the coil loudspeaker was invented in 1925... The audio spotlight will force people to rethink their relationship with sound…" -NewyorkTimes So we can conclude- Audio Spotlighting really "put sound where you want it" and will be "A REAL BOON TO THE FUTURE."

WORKSHOPS

S. NO	WORKSHOPS	SUBJECT NAME	DATE-MONTH-YEAR	RESOURCE PERSON WITH DESIGNATION	FILL GAPS ON	NO.OF STUDENTS
1.	Conducted one day seminar on "Advanced Java programming"	Object Oriented Programming Systems	25-07-2016	Ms. UMA, FACE Technologies	Struts, EJB,JPA	93
2.	Conducted a workshop on "Design concepts of Satellite launcinhg vehicles"	Satellite Communications	16-12-2016 17-12-2016	Dr.M.Senthilkumar, Professor, ECE, Tirumala college of Engg	Orbital mechanics, launch vehicles, launches	92
3.	Conducted one day seminar on "Various modern communication techniques and applications"	Analog Communication	26-09-2016	Dr.Runa Kumari, BITS, Shamirpet	Modern communication systems	90
4.	Conducted one day seminar on "Smart Antennas"	Antennas & Wave Propagation	01-10-2016	Dr.Mr.Y.Srinivas, VBIT, Aushapur.	Smart Antennas	97

SEMINARS

S.no	Topic	Date-Month-Year	Resource Person	No.of students	Fill Gaps on
1	Conducted a workshop on " ARM based processors and their applications"	19-12-2016 20-12-2016	Mr.Rajiv Patnayak, PGP Electronics	99	Multiprocessor Architectures
2	Conducted a workshop on " Designing aspects of different types of higher order filters	27-02-2017 to 28-02-2017	Dr.S.P.V Subba Rao, SNIST, Ghatkesar	94	Higher order Filters
3	Conducted one day seminar on" Different types of Multiple Access Techniques"	20-02-2017	Dr.Anandrajan,MRECW, Dullapally	96	Different types of Multiple Access Techniques, Basics of Optical Communication
4	Conducted one day seminar on "Active Circuit design based on oscillators"	07-01-2017	Ms.K.Geethanjali,NMREC, Narapally	94	Op-Amp based design of Oscillators

INDUSTRIAL VISIT

- Students of 2nd year visited MEDHA SERVO DRIVES Pvt.Ltd. on 20-12-2016, total 74 students along with 2 teaching faculty were a part of this visit.
- Students of 4th year visited SIGMA MICRO SYSTEMS Pvt.Ltd. on 27-02-2017, total 82 students along with 2 teaching faculty.
- Students of 3rd year visited NFC , MOULI ALI on 06-02-2017, total 80 students along with 2 teaching faculty were a part of this industrial visit to interact with industries.



TECHNICAL TRAINING PROGRAM:

Nature of Event conducted	Dates on which the event was held	Topic	Participated Students	Faculty of training/Partner
POP Session	18-Jan-17	Soft skills	III & IV Years	TASK
Career Guidance	25-Jan-17	Abroad Counseling	III & IV Years	YGK ACADEMY
Communication & Language Skills	27-Jan-17	GD - Orientation	III & IV Years	MR.SESHAGIRI RAO,FACE
		PI - Orientation	III & IV Years	MR.SESHAGIRI RAO,FACE,FACE
		Resume writing	III & IV Years	MR.SESHAGIRI RAO,FACE
Technical Contest	2-Feb-17	Young Mind Challenge Contest	III & IV Years	CAREER LAUCHER
Professional Development Program	3-Feb-17	Career Awareness session	III & IV Years	PRINCETON REVIEW
Revision Sessions	3-Feb-17	Aptitude	III & IV Years	FACE
Mock Drive	9-Feb-17	Mock Drive	III & IV Years	IBS
Technical Training Program	9-Feb-17	C and Java brush up sessions	III & IV Years	TALENT SPRINT
Assessment Test	10-Feb-17	QAT, AR,EUT, EAT,WET,DOMAIN & Coding Tests	III & IV Years	COCUBES