

RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# **Editorial Board Members**

Dr.Ch.VenuGopalReddy -Chief Editor Professor & HOD, ECE Dr.R.PrakashRao-Executive Editor, Professor, ECE D. SyamBabu- Executive Editor, Asst Professor, ECE

**Editorial Student Members** 

K. Aravind, III ECE-II D. Vamshi Gupta, III ECE-II P.Asritha Sree, III ECE-II S.Narendra, III ECE-II K.N.S.Asa Kamala, III ECE-I Nikhilesh Kumar, III ECE-I S.Sabdananda Swaroop, III ECE-I N.Mahesh Babu, III ECE-I

ECEDEPARTMENT Page1 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS



# **About the Department**

Vision, Mission & Objective PEOs, POs & PSOs

## Messages

Chairman's Message Vice-Chairman's Message Principal's Message

H.O.D's Message

Editor's desk

# Facilities & Infrastructure

List of All Laboratories Department library Computing & Internet Facility

# Activities

General Articles Technical Articles Telugu Articles Paintings Photography Events Placements

ECEDEPARTMENT Page2 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS <u>ABOUT THE DEPARTMENT</u>

The Department of Electronics & Communication Engineering came into Existence since the Inception of the College. We Proceed With An Aim to Produce Highly Qualified and Qualitative Individuals in the Society With Both Theoretical And Practical Knowledge. We Impart the Needed Technical Knowledge in Students and They Are Encouraged to get hands-on experience by organizing seminars, Workshops and Symposiums in the campus to enhance their skills and Make Them Industry Worthy.

### VISION

To become a center of excellence in Electronics and Communication Engineering to meet the global technological and industrial requirements.

### MISSION

M1: Provide modern technical knowledge, professional skills and attitude to meet industry and society needs.

M2: Promote innovations through professional training and development. M3: Develop a team with professional ethics and social responsibility.

### **OBJECTIVE**

The institution has the broad objective of being an active agent of change by responding to the needs and challenges of the times. This will be achieved basically through the process of education training and research.

ECEDEPARTMENT Page3 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# **PROGRAM EDUCATIONAL OBJECTIVES (PEOs)**

### **PEO1: Core Skills**

Intensive and extensive engineering knowledge and skill to understand, analyze, design and create novel products and solutions in the field of Electronics and Communication Engineering.

### **PEO2**: Problem solving & lifelong learning

Capability to pursue career in industry or higher studies with continuous learning.

### **PEO3: Entrepreneurship Skills**

Leadership qualities, team spirit, multi-disciplinary approach, character molding and lifelong learning for a successful professional career.

### **PEO4:** Professionalism

Professional and ethical attitude, effective communication skills, and sense of responsibility towards society.

## ECEDEPARTMENT Page4 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS PROGRAM OUTCOMES (POs)

- 1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
- 2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural science and engineering sciences.
- 3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet thespecified needs with appropriate consideration for the public health and safety, and the cultural,

societal and environmental considerations.

- 4. **Conduct investigations of complex problems:** Use research based knowledgeand research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 5. **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.
- 6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- 7. **Environment sustainability:** Understand the impact of the professional engineering solutions in the societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 8. **Ethics:** Apply ethical principles and commit to professional ethics, responsibilities, and norms of the engineering practice.
- 9. **Individual and teamwork:** Function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. **Communication:** communicate effectively on complex engineering activities with the engineering community and with 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.
- 11. **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.
- 12. Lifelong learning: recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broader context of technological change.

### ECEDEPARTMENT Page5 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# **PROGRAM SPECIFIC OBJECTIVES (PSOs)**

**PSO1:** Design and implementation of complex systems by applying basic concepts in Electronics & Communication Engineering to Electronics, Communications, Signal processing, VLSI, Embedded Systems (Core Skills).

**PSO2:** Solve complex Electronics and Communication Engineering problems, using hardware and software tools, along with analytical skills to arrive cost effective and appropriate solutions relevant to the society. (Problem-Solving Skills).

**PSO3:** Quality in technical subjects for successful higher studies and employment (Professional Career).

ECEDEPARTMENT Page6 <u>RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS</u>

# Hon'ble Chairman's Message...



Mr.I.C.Rangamannar, Hon'ble Chairman, *RISE Krishna Sai Group of Institutions* 

It is my pleasure to acknowledge the students of the Elections and Communication Engineering Department. These graduating students have been demonstrating excellence in the areas of problem solving, analytical methods and teamworkskills, and have immense potential for leadership and life-long learning. I congratulate each of you for your dedication and hard work, and we welcome your future endeavours and support of the Electronics and Communication Engineering Department.



Mr.SiddaVenkateswaraRao, Hon'ble Vice-Chairman, *RISE Krishna Sai Group of Institutions* 

If information alone is education, today's students require no assistance at all to make strides in their fields. Technological devices can be their best source of learning. But there is a lot to learn on the part of student besides academic information. Character building ought to be one of the cardinal objectives of education. I give importance to education based on character.

# ECEDEPARTMENT Page7 <u>RISEKRISNASAIPRAKASAMGROUPOFINSTITUTION</u>



## Dr.A.V.BhaskaraRao PRINCIPAL

The major challenge for today's engineering educational institutions is to accommodate the ever varying aspirations of the younger generation because of increasingly changing demand and development in industries. We constantly put efforts to accommodate these aspirations byfinetuning the academics of college with innovative and practical oriented teaching - learning practices along with other developmental activities. Our institute stands by its core values, mission of churning out well- rounded individuals and thorough profession.



Dr.Ch.VenuGopal Reedy Prof. & HOD-ECE

The Department of Electronics and Communication Engineering is one of the most dynamic departments of Rise Krishna Sai Prakasam Group of Institutions. I am really elated to tell that the department stands on the strength of experienced and well qualified faculty who are very dedicated to teaching and also involved in up-gradation of knowledge.Their research experience will help to cultivate the future of our students. With great demand in industry and great placement opportunities, the department stands tall and proud.

### ECEDEPARTMENT Page8 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# FROM THE EDITOR'S DESK

### Dear Students,

We hearty welcome you to the newly launched ECE Department's Magazine for the academic year 2020-2021. The objective of the magazine is to mainly focus on achievement of the students from the ECE department in the Co-curricular and Extra- Curricular Activities. I congratulate all my team members for their constant effort in launching this Magazine. We are also thankful to our Management and Principal for their support and encourage- ment. Finally, we are gratified to our reviewers for their frank opinions and constructive suggestions, namely our colleagues and students.

# **FACILITIES & INFRASTRUCTURE**

# **1. LABORATORIES**

The department of ECE has well equipped and high quality laboratories Listed below. • Electronic Devices and Circuits Lab

• Electronic Circuit Analysis Lab

- Analog communications Lab
- Linear Integrated Circuit Analysis Lab
- Digital Communications Lab
- MW&OC Lab
- VLSI Lab
- DSP Lab
- Microprocessor & Microcontrollers Lab
- DSD&DICA Lab
- Projects Lab
- Research Lab



ECEDEPARTMENT Page9 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# **2. DEPARTMENTLIBRARY**

Our college library occupies a prominent position and it is an important and integral part of the teaching programme. It is not merely a depository of books, but an active workshop instrument in the production of or original thinking. The aim of college education and college libraries in inter-related. College library extends opportunities for self-education to the deserving and enthusiastic students without any distinction. These libraries develop in each student asenseof responsibility in the pursuit of knowledge. College library stimulates the students to obtain, evaluate and recognize knowledge and to familiarize themselves with the trends of knowledge for further education and learning new Disciplines. "Libraries are reservoirs of strength, Grace and wit, reminders of order, Calm and continuity, Lakes of Mental energy, Neither warm nor old, Light nor dark. The pleasure they give is steady, Unorgastic, reliable, Deep and long-lasting.

Germaine Greer"



ECEDEPARTMENT Page10 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS 3.

# **COMPUTING&INTERNETFACILITY**

The RISE campuses are connected with Intranet facility with which students make use of all the books and materials and other references through Computer Assisted learning around the clock. Intranet facility can be put to constructive purposes by allowing all the students and faculty to share information with one another and exchange new ideas to improve teaching and learning methods, increase productivity, and promote greater friendliness and better coordination.





ECEDEPARTMENT Page11 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS



WI-FI facility: The facility acts as the best technological com panion to the students. They are able to procure academic richness depending on the global technological resources



ECEDEPARTMENT Page12

**RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS** 

# **ACADEMICTOPPERS:**

# **University end ExaminationsToppers**

## 2017-2021BATCH:

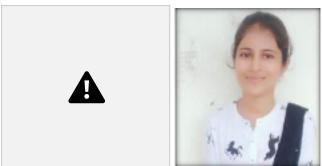
RollNumber Nameofthe Student Percentage

178A1A0404BOLLEPAKAHARIKA83.24178A1A0432NANDANAVANAMASRITHA82.67178A1A0462BADDELISARANYA 82.11178A1A0462

**2018-2022BATCH:** 188A1A0426 SATTENAPALLISUSMITHA 88% 188A1A0420 PALAGADARAMYAKUMARI 83%

## 2019-2023BATCH:

198A1A0478 CINTHALA.KAVITHA 84% 198A1A04974 SANAMPRIYAVARSHINI 81%

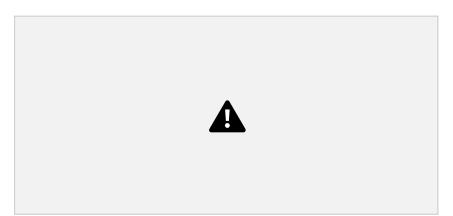


CINTHALA.KAVITHA

SANAMPRIYAVARSHIN

ECEDEPARTMENT Page13 <u>RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS</u> *GENERAL ARTICLES:* <u>ASOCALLEDLIFE...</u> On the earth time is considered as a precious thing. When I was a child my teachers always said one thing that is "dont waste your time". Then I didn't think of why they are saying so? And I even didn't know what it really mean. In our childhood everyone wants to enjoy and makes some fun, on doing that we were used to waste our time. As a child we all thought that making memories with friends and having fun is considered as a precious thing. At some point we will able to know what the real meaning of precious-"this means which we will never get back in our entire life when we miss it once". That is why as a child everyone wants to make some beautiful memories because whenwe look back we only can recollect our memories butwe can't get them back. Because of it we are considering memories are precious one's.

Hereweare missing a small point that is memories are all about recollecting our past, past means **"time"**, so that time is considered as a precious thing in the whole earth. Our teachers always says if we utilize our time in a good way it helps in the future I five waste our time we will face it's result in future.



Thatmeans everything is connected to time.What we did in past and what we do in present will result our future sooner or later.In another word we can call it as "**karma**". Utilising our time in a good way doesn't mean studying 24 by 7 and not to enjoy or restricting our freedom.

When we are able to balance them we are matured then we will able to recognise our dream and realize about career. For example like food our life should be balanced too. If one spice dominates the food it will effect our taste like that if one emotion dominates it will effect our life.

### ECEDEPARTMENT Page14 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

That's why everything should be balanced in life and our life is connected to time. Time is considered as a precious one, like time our life is precious too. We are the engineers of our life. Time wouldn't stop for anyone like it our life also shouldn't be stopped by others words. If we Persue our dream, make ourself proud they will be stopped that is life. We can also say it A SO CALLED LIFE.

# S.VishnuPriya

208A1A0417 ECE-1 3<sup>rd</sup>yr

# THEGIFTOFFIRE

Let us enjoy reading this Greek Mythological Story of The Gift of Fire. Fire being so important to us, it is not surprising that several mythologies of the world contain references to how fire was first revealed to or obtained by man.In Polynesian mythology it was the god Maui who gave fire to mortals after stealing it from the fire goddess. Prometheus of Greek mythology too stole fire from the gods to give to man.The Bushmen of the Kalahari Desert have their own legend about fire. Interestingly,in their tale, man gets fire through his own efforts and not through the kindness of any god.

> **RSaicharan** 208A1A0444 ECE-IPRAKASAM

# THEOSTRICHSTRETCHESITWINGS

-A Bushman Legend Mantis, the creator-god, felt that mankind was not readyfor the giftof fire. So he entrustedittothe ostrich who keptit safely under one of its wings. A Bushman learnt that the ostrich had fire and made up his mind to steal it. So one day he paid the ostrich a visit."I've come to tell you my dream," he said."Why should your dream interest me?" asked the ostrich."Because it concerns you," said the Bushman."In my dream I learnt that if you were to stand with your wings spread out in the strong wind preceding dawn, you would soar into the sky like an eagle.""That's interesting," said the ostrich, secretly thrilled. Its greatest wish was to be able to fly."Do not pass up this chance to get the gift of flight,"advised the Bushmanbeforeleaving. Beforedawnthenextday,the

ECEDEPARTMENT Page15 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

ostrich spread out its wings and waited to be lifted into the sky. As it waited, the Bushman crept up to it, grabbed the fire and ran. That is how people got fire and that iswhy, say he Bushmen, the ostrich is not as smart as other birds. The loss of the fire upset it so much that it became feebleminded.

**RSaicharan** 208*A*1*A*0444

208A1A0444 ECE-1PRAKASAM

# **MUSIC**

Music plays a huge role in a teen's life. Many of them listen and play music to express themselves, especially to express their pent-up angst. This also explainswhy many go gaga over bands. Speaking of bands, you can write articles aboutupcoming and popular musicians or music groups, the songs they play, wherethey're playing next, types of shows or concerts in which they are appearing,the story behind their success, their upcoming tours, etc. "The music is not inthe notes, but in the silence between". Music has great qualities of healing aperson emotionally and mentally. Music is a form of meditation.

While composing or listening music ones tends to forget all hisworries, sorrows and pains. It has the power to cure diseases such as anxiety, depression, insomnia, etc. The power of Music can be testified by the legends about Tansen of his bringing the rains by singing Raag Megh Malhar and lighting lamps by Raga Deepak. It also helps in improving the concentration and is thus of greathelp to the students. Music is known as the Universal language because itknows no boundaries. It flows freely beyond the barriers of language, religion, country, etc. Anybody can enjoy music irrespective of his age. The research hasproved that the plants which hear the Music grow at a faster rate in comparison the others. Finally we understand the meaning of the music based on oursituation

> M<mark>.VineethaLakshmi</mark> III-ECEI 198A1A0421

ECEDEPARTMENT Page16 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# TIME

Time is very precious and we should not waste it in any way. Likewise, we can earn the money we spent but we cannot get back the time we have lost. So, this makes the time more valuable than money. Hence, we should Utilize the time in the most possible way.

## **IMPORTANCEOFTIME:**

Time does not wait for any one. Whether you like it or not, the fact is time will never stop. It will keep going on. This is an old belief but it still holds true. Time gives you only one chance and you have to make the best of it.

Amomentlost, is lost for ever. You cannot goback and reverse time. Never postpone things for the next day. Today is important. So complete your task today rather than leaving it for tomorrow. Leisure is enjoyable but after a fruit fulhardwork.

## **VALUEOF TIME:**

Although most people do not understand how valuable time is until they lost it. Besides, there are people in the world who prioritize money over time because according to them, time is nothing.But, theydo not realize the fact that it is time that has given them the opportunity to earn money. Apartfromthis,thetimehasgivenusprosperityandhappinessandon thecontrary,ithasalsogivenussorrowandgrief.

We can say that time is the greatest gift of God. Moreover, there is a saying that "if you waste time, time will waste you." Only this line is enough to justify how important and valuable time is. Finally we say that Time moves speed based on our situation for example if we are in bad moodtimemovesveryslowlyandifweareinhappymoodtimesmoves veryfast.

P.V.Jyothirmai 198A1A0432 III<sup>rd</sup>ECE-II

ECEDEPARTMENT Page17 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# **TECHNICAL ARTICLES:**

# **MAGLEV** Trains

#### Kavali Aravind, III-ECEII, RollNo:208A5A0408

We have always thought of aeroplanes as the fastest mode of transportation. As it travels thousands of miles in an hour we do not mind the flight delays and also the risk in flying. There is no other alternative to planes that can travel such a great distancein minimum amountoftime. Buses, cars, boats and even conventional trains seem to be too slow in comparison to planes. Now a new transportation mode has occurred that can clearly compete with planes in both speed and safety. They are

calledMAGLEVtrains.ThefullformandthebasicworkingprincipleofMAGLEVis calledMagneticLevitation.

#### **MagneticLevitation**

The principle of magnetic levitation is that a vehicle can be suspended and propelled on aguidance track made with magnets. The vehicle on top of the track may be propelled with thehelp of a linear induction motor. Although the vehicle does not use steel wheels on a steel railthey are still referred to as trains as by definition they are a long chain of vehicles which travel inthesamedirection. This is the definition of a MAGLEV train. As the frictional parts are minimum in this type of technology, the MAGLEV trains are known to have more speed, smoothness and lesssound.

#### WorkingofMAGLEVTrain

The train will be floating about 10mm above the magnetic guiding track. The train will bepropelled to move by the guide way itself. Thus, there is no need of any engine inside the train. The detailed working of MAGLEV train is shown in the figure below. The train is propelled by thechanging in magnetic fields. As soon as the train starts to move, the magnetic field changessections by switching method and thus the train is again pulled forward. The whole guide way isrun by electromagnets so as to provide the magnetic effect.



Thus the power needed for the whole process is less when compared to a conventional electrictrain. Amongst the power used, only a little is used for the levitation process. But a higherpercentage of power is needed to overcome air friction.

#### ECEDEPARTMENT Page18 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

#### MAGLEVv/sConventionalTrain

The main difference between both the trains is that conventional trains need steel wheels and asteel track for their movement and MAGLEV does not need wheels. They travel undertheprinciple of electromagnetic suspension. Another difference is in the engine used. MAGLEV trainsdo not need engines like conventional trains. The engine used for conventional trains providepower to pull a chain of compartments along steel tracks. In MAGLEV trains, the power to propelthe train is provided by the magnetic fields created by the electric coils kept in the guidancetracks which are added together to provide huge power.

#### **MAGLEVTrack**

The track along which the train moves is called the guide way. Both the guide way as well as thetrain's undercarriage also have magnets which repel each other. Thus the train is said to levitateabout 0.39 inches on top of the guide way. After the levitation is complete, enough power has tobe produced so as to move the train through the guide way. This power is given to the coilswithin the guide way, which in turn produces magnetic fields, which pulls and pushes the trainthrough the guide way.



The current that is given to the electric coils of the guide way will be alternating in nature. Thusthe polarity of the coils will be changing in period. Thus the change causes a pull force for thetrain in the front and to add to this force, the magnetic field behind the train adds more forwardthrust.

#### **CommercialuseofMAGLEVTrains**

- The first known commercial use of MAGLEV train was in the year 1984inBirmingham, England, and the train was named MAGLEV itself. But due to less reliability, the train wasstopped by 1994.
  - The most famous commercial MAGLEV train is the Shanghai MAGLEV train in Shanghai, China. The train can go in a top speed of 270 miles/hour withan average speed of 160 miles/hour.
- Since these trains move on a cushion of air, there is no friction at all [except air friction]. The trains are also aerodynamically designed which enables them to reach great speeds like 300 miles/hour and so on. At300 miles/hour you can travel from Rome to Paris in about 2 hours.

ECEDEPARTMENT Page19 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# Electronic Ink(E-ink)Technology

Komaraneni.Rajesh,III-ECEII,RollNo:208A5A0409

We have seen the working of electronic displays like Liquid Crystal Displays, SED TV's, and Touchscreen technology and so on. Even though we rely mostly on monitors nowadays we must notforget the fact that the basic display mechanism is paper the early 105 AD when the Chineseinvented it. Before the invention of paper, the only way to print your writing was on silk scrolls, which only wealthy people could afford. This would have made literacy rate lesser.

People communicate through paper by writing on it with ink. They display their ideas with thehelpofwords and images, which may differ in many languages as well. The paper technology has not yet been beaten by other display technologies in the matter of portability and price. But this technology also has some disadvantages like you cannot rewrite on top of the printed words and it is difficult to carry a large number of books. Now, these disadvantages are also being minimised with the help of a new technology called electronic ink [e-ink]. In this post we will discuss about how e-ink is made, how large bundles of books can be carried easily and itsefficiency in replacing other computer displays.

#### <u>MakingE-ink</u>

E-ink may look similar to the regular ink, though they are different. In fact it can also be appliedon the same material in which regular ink is applied. Although different companies manufactureE-ink in different ways, there are three basic components that give them the ability to rearrangeupon command. They are

#### 1. Millionsoftinymicrocapsules

2. Theinksubstancepresentinanoilyformwhichfillsthemicrocapsules

3. Negativechargedpigmentedchipsorballswhichfloatinsidethemicrocapsules

When using the e-ink in a digital book, the pages will be made of an ultra-thin plastic material. The ink is allowed to spread through the entire page, and they will be separated by cells thatsomewhat resemble the cells on graph paper. They also resemble to the way in which pixels arearranged on a computer screen, with each cell connected to microelectronics which areembeddedin thisplasticsheet.Whenthistypeof adesign is setupthetext orimagethatistobe displayed is done by applying a positive or negative charge to the microcapsules.

A company called Xerox from Palo Alto, CA is one of the major manufacturers of E-ink. To knowthe working of this technology in a better sense, the company has given a better example. Youhave to compare the microcapsules inside ink to clear beach balls. These beach balls should befilled with hundreds of tiny, white ping-pong balls. And instead of air, the beach ball is filled witha blue dye. If you notice this design from the top position, you can see that the beach ball iswhite incolour and that the smaller ping-pong balls arefloating in the liquid. If you looked at thetop of thisbeach ball, youwould see theping-pongballsfloating in the liquid, and the beach ballwould appear white. But if you looked at the bottom of the ball, it would appear blue.

If these beach balls were laid on a field and the ping-pong balls were made to move between the topand bottom of the beach balls, you could make the field change colour. This is thebasic working of E-ink.Nowinreality,the microcapsulesareverysmallthatalmost100,000microcapsulescanbe

#### ECEDEPARTMENT Page20 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

put in a square inch of paper. Their width does not exceed 100 microns and each microcapsulecontains hundreds of smaller chips. Given below is a diagram on how the pigment chips insidethe E-ink reacts to the +ve and –ve charges.



From the figure you must have noticed that when a charge is applied to the microcapsules, thechips are forced to move to the top or pulled down to the bottom. When they move to the top, the chips make the capsules look white and when they are pulled down to the bottom, thecapsules look dark. This is because the person seeing it only sees the dark ink. When these smallblack and white spots are arranged in patterns, words, sentences and images can easily beformed.

### <u>UsesofE-ink</u>

The biggest advantage of E-ink is that it can be easily printed on surfaces like walls, billboards,clothes and so on. This idea has already caught the eye of many advertising agencies and youmay have noticed advertisements on walls using this technology. The ink is so flexible that it ispossible to develop roll-up displays for electronic devices. They also need very little power for itsusage. When compared to LCD displays, they consume almost 100 times lesser power than LCD'sdo. Another advantage includes its readability. As the text is printed in format, it does not causestrain to the eyes. Thereare studies going on in increasing theresolution in products so that theycan be viable in book or other small-print publications.

One of the main use of this technology is its application in digital books which can typeset itselfand that readers could go through it like it were made of regular paper. You could even borrowstories from the library by wireless transaction and after reading it you can send it back to thelibrary. Nowadays you may have noticed the presence of E-books that are available in sites indownloadable format. The above mentioned ways are applicable in the way you receive yournewspaper aswell. Allyouhaveto do is press a buttonon your computer thatwouldupdate howmany ever 'e-newspapers' you need. Thus you will have no worries on what to do with the lumpof papers at your home.As papersare madefrom trees youare able to reduce theenvironmentalpollution by lessening the cutting of trees.

# ECEDEPARTMENT Page21 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS PhotonicIntegratedCircuitTechnology

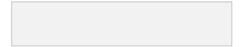
#### Surisetty Narendra, III-ECEII,RollNo:208A5A0412

PhotonicIntegratedCircuit(also knownasPIC),isa complexintegratedcircuitwhichincorporatesa lot of optical devices to form a single photonic circuit. The main difference between a PIC andan Electronic IC is that PIC is analogous to an Electronic Integrated Circuit. Many optical deviceslike optical amplifiers, multiplexers, de-multiplexers, optical lasers, attenuators and also detectorsare integrated on to a Photonic Integrated Circuit. For a large-scale operation of such a devicethousands of optical devices will be integrated on to the device.

In a PIC, the signals are sent by superimposing them on wavelengthsusually in the rangebetween the visible spectrum and infrared. The range usually is between 800 nanometers and 1700 nanometers. In 2005, during a development of a laser light through silicon in an electronicintegrated circuit, there occurred a problem with quantum noise, which prevented the generation. This problem was easily overcome by a photonic integrated circuit as a single medium. Thus the importance of PIC was known.

#### PhotonicIntegratedCircuitsvsElectronicIntegratedCircuits

The main difference between PIC and Electronic Integrated Circuits is in the type of material thatis used for its fabrication. In the case of an electronic IC, the most dominant material that is used is silicon. But, in the case of PIC, the fabrication material mainly depends on the purpose of thedevice. That is the material will depend on the function that is to be integrated by the device. Themost common materials that are used for its fabrication are a mixture of silica on silicon, siliconon insulator, and so on. Apart from these mixtures even some types of polymers andsemiconductor materials are also used to make lasers like which are used to make semiconductorlasers such as Gallium Arsenide [GaAs] and Indium Phosphide [InP].



The fabrication methods for both the devices are the same. Photolithographic methods foretching and deposition of material are the same. The difference is in the primary device that isused for fabrication. In an electronic integrated circuit the main device is the transistor. But, inPIC, there is no particular main device that dominates in the fabrication. According to itsapplication, the rangesof fabricationdevices aredifferent asthedevices that are to be integrated are more than that used in an electronic integrated circuit. The devices ranges from opticalamplifiers, filters, low loss-high efficiency interconnect waveguides, detectors, power splitters, modulators and lasers. As different materials are required to fabricate allthese devices onasingle chip, the procedures and steps become very difficult. But latelyresearchershavedeveloped methods to make PIC's using resonant photonic interferometry process. Through thismethod, we can easily develop ultra violet light emitting diodes (LED) in a cost efficient way. With the use of such LED's we can easily overcome optical computing problems.

#### ECEDEPARTMENT Page22 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

#### PhotonicIntegrationMethods

Therearemainlytwotypesofphotonicintegrationmethods. Theyare

HybridPhotonicIntegrationand

MonolithicPhotonicIntegration

In the case of Hybrid Photonic Integration, the developed integrated IC will be a single package.This package will consist of a number of photonic devices which is used for the same function.Due to this advantage, a lot of IC's are made through this method so as to combine a lot ofintegrated optic devices.

#### ApplicationsofPhotonic IntegratedCircuits

- It is used in fibre-optic communication to make Externally Modulated Lasers (EML) which has acombination of a distributed feedback laser diode and an electro-absorption modulator on asingle Indium-Phosphide [InP] chip.
- It has a great application in wavelength division multiplexed (WDM) fiber-optic communicationsystem, where an arrayed waveguide grating (AWG) has to be developed using this technology. AWG is commonly used as optical multiplexers and de-multiplexers.

Usedinbiomedicalandphotoniccomputing

UsedinOpticalsensorsandmetrology

### ECEDEPARTMENT Page23 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# Predicting Earth Quake Through Data

Mining Kondaru.AshokKumar,III-ECEII,RollNo:198A1A04A9

Data mining consists of evolving set of techniques that can be used to extractvaluable information and knowledge from massive volumes of data. Data miningresearch &tools have focussed on commercial sector applications. Only a fewer datamining research have focussed on scientific data. This paper aims at further datamining study on scientific data. This paper highlights the data mining techniquesapplied to mine for surface changes over time (eg Earthquake rupture). The datamining techniques help researchers to predict the changes in theintensityofvolcano.

This paper uses predictive statistical models that can be applied to areas such asseismic activity or the spreading of fire. The basic problem in this class of systems isdynamic, usually unobservable with respect to earthquake. The space time patternsassociated with time, location and magnitude of the sudden events from the forcethreshold are observable. This paper highlights observable space time earthquakepatterns from unobservable dynamics using data mining techniques, patternrecognition and ensemble forecasting. Thus this paper gives insight on how datamining can be applied in finding the consequences of earthquake and warning thescientific, hence alerting the public.

## **DATAMINING-DEFINITIONS**

• Dataminingisdefinedasaninformationextractionactivitywhosegoalistodiscov er hidden facts contained in databases.

• It refers to finding out new knowledge about an application domain using data onthe domain usually stored in a database. The application domain may beastrophysics, earth science solar system science.

• It'savarietyoftechniquestoidentifynuggetsofinformationordecisionmakingkno wledgeinbodiesofdataandextractingtheseinsuchawaytheycanbe put touse in the areas such as decision support, prediction ,forecasting andestimation.

## DATA MINING GOALS

Bringtogetherrepresentativesofthedataminingcommunityandthedomainscienc e community so that they can begin to understand the currentscapabilitiesand research objectives of each others communities related to datamining.
 Identify a set of research objectives from thedomain science community that

ECEDEPARTMENT Page24

wouldbe facilitated by current or anticipated data mining techniques. • Identifyasetofresearchobjectivesforthedataminingcommunitythatcouldsupport the research objectives of the domain science community.

ECEDEPARTMENT Page25 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS DATAMININGMODELS

Dataminingisusedtofindpatternsandrelationshipsindatapatternsandrelationships in data patterns can be analyzed via 2 types of models.

1. Descriptivemodels:Usedtodescribepatternsandtocreatemeaningfulsubgr oups or clusters.

2. Predictive models .Used to forecast explicit values, based upon patterns in

### knownresults. \*\*This paper focuses on predictive models. Inlargedatabasesdataminingandknowledgediscoverycomesintwo



flavors:

#### 1.<u>Eventbasedmining</u>

• Knownevents/knownalgorithms:Useexistingphysicalmodels(descriptivemodelsand algorithms) to locate known phenomena of interest either spatially or temporallywithin a large database.

• Known events/unknown algorithms: Use pattern recognition and clusteringpropertiesofdatatodiscovernewobservational(physical)

relationships(algorithms)among known phenomena.

• Unknownevents/knownalgorithms:Useexpectedphysicalrelationships(predictivemodels, Algorithms) among observational parameters of physical phenomena topredict the presence of previously unseen events within a large complex database.

• Unknownevents/unknownalgorithms:Usethresholdsortrendstoidentifytransientor otherwise unique events and therefore to discover new physical phenomena.

#### 2.<u>Relationshipbasedmining</u>

• SpatialAssociations:Identifyevents(egastronomicalobjects)atthesamelocation.(eg same region of the sky)

TemporalAssociations:Identifyeventsoccurringduringthesameor relatedperiods of time.

• Coincidence Associations: Use clustering techniques to identify events that are co-located within a multi-dimensional parameter space.

Userrequirements fordatamininginlargescientificdatabases

• Cross identifications: Refers to the classical problem of associating the source listin one database to the source list in another.

• Crosscorrelation:Referstothesearchforcorrelations,tendencies,andtrendsbetween physical parameters in multidimensional data usually across databases.

• Nearestneighboridentification.Referstothegeneralapplicationof

clusteringalgorithmsinmultidimensionalparameterspaceusuallywithinadatabase.

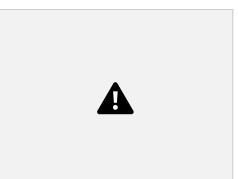
#### ECEDEPARTMENT Page26 <u>RISEKRISNASAIPRAKASAMGROUPOFINSTITUTION</u>

## **<u>S</u>E-Textiles**

#### Vangapalli.Aravind,III-ECEII,RollNo:198A1A04C4

E-textiles, also known as electronic textiles, are fabrics that can function electricallyas electronics and behave physically as textiles which enable computing ,digitalcomponents and electronics to be embedded in them. Part of the development of wearable technology, they are referred to as intelligent clothing or smart clothing thatallow for the incorporation of built-in technological elements in everyday textiles and clothes. It does not strictly encompass wearable computing because emphasis isplaced on the technology not being visible on the fabric and a computer isnotactually embedded into the fabric. While not part of the

mainstream form of fashion, its popularity is increasing and more research is being devoted to it.



#### Thefieldofe-textilescanbedividedintotwomaincategories:

 The first category involves mounting classical electronic devices such asconducting wires, ICs, LEDs and conventional batteries into garments.
 The second category involves creating electronic function directly on the textilefibers. These functions can either be passive such as pure wires, conducting textilefibers, or more advanced functions such as transistors, diodes and solar cells. Thefield of embedding advanced electronic components onto textile fibers is sometimesreferred to as fibertronics.

The most common approach to e-textiles today comprise the first category, which istechnically the most simple approach, and where even a number of commercial products exists such as textiles with incorporated LED components. There are also a number of research and commercial projects that comprise the useof hybrid structures between category 1 and 2. Here usually a less advancedelectronic functions that is embedded into the textile fiber is connected to a classicalelectronic device or component. Some examples are touch buttons that areconstructed completely in textile forms by using conducting textile weaves, and thenconnected to devices such as music players , or LEDs that are mounted on wovenconducting fiber networks to form displays. Construction of electronic function on textile fibers requires the use of conducting and semi-conducting materials. There are a number of commercial fibers today thatinclude metallic fibers mixed with textile fibers to form conducting fibers that can bewoven or sewn. However as both metals and classical semiconductors (such as Si)are stiff material they are not very suitable

ECEDEPARTMENT Page27

for textile fiber applications where fibersare subjected to large stretch and bending during use.

Another class of electronic materials which is more suitable for e-textiles is the classoforganicelectronicsmaterials,(alsoreferredtoasconductingplastics,orinheren tlyconducting polymers). As organic electronic materials can be both conducting,semiconductinganddesignedasinksandplastics,theyaremoresuitablefo rmakingelectronic fibers.

Someofthemostadvancedfunctionsthathavebeendemonstratedinthelabtodate include:

organicfibertransistors,thisisthefirsttextilefibertransistorthatiscompletelyc ompatible with textile manufacturing and that contains no metals at all.

Organicsolarcell onfibers.

## 2. BENEFITSOFETEXTILES

Electronic textiles, or e-textiles, are a new emerging inter disciplinary field ofresearch, bringing togethers pecialists in information technology, microsystems, materials, and textiles. E textiltes offers the following advantages:

Flexible No wires to snag environmentLargesurfacearea forsensingInvisible to others Cheap manufacturing

The focus of this new area is on developing the enabling technologies andfabrication techniques for the economical manufacture of large-area, flexible,conformableinformationsystemsthatare

expectedtohaveuniqueapplicationsforboth the consumer electronics and aerospace/military industries.

### PROPERTIESOFE-TEXTILES

### **Electricalproperties:**

Fromtheelectricalpointsofview,conductivityisthemostimportantfactor. Electricalresistance low enough to allow a flow of electric energy, such as for power or datatransmission, is critical. Metal, carbon, or optical fibers are typically well-knownconductors.

Conductive yarns are either pure metal yarnsor composites of metals and textiles.Metalsaresuperiorinstrengthandfineness,andtextilesareselectedforcomfort.I norder to produce a successful conductive yarn, the best mix of conductive and non-conductive materials is critical.

As a thread takes on a bigger portion of conductive components, it loses the typicaltextilepropertiessuchasflexibilityordrapabilityandbecomesmoreconductiv

ECEDEPARTMENT Page28

e.Theachievement in electrical resistance has ranged from 0.2441 ohms per meter ( $\Omega/m$ )to 5,000  $\Omega/m$ .

ECEDEPARTMENT Page29 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# Hawk-eyeTechnology

Pachava.Balaji,III-ECEII,RollNo:198A1A04B3

Hawk-Eye is a computer system used in cricket, tennis, snookers and other

sports tovisually track the path of the ball and display a record of its most statistically likelypath as a moving image Hawk-Eye as the most innovative technology provider insports broadcasting and is a development that will reinforce thegroup's presenceand influence.

Itis primarilyused by themajority oftelevisionnetworkstotrackthetrajectoryofballs in flight.
ItwasdevelopedbyengineersatRokeManorResearchLimited ofUKin2001
Apatentwassubmitted byDrPaulHawkinsandDavidSherry.



## **Applications**

Its applications are mainly in sports Cricket Tennis Snookers and In some games Cricket Used in the third umpire decision(Referral system) At the end of an over, all six deliveries are shown simultaneously to show a bowler's variations such as bounce, speed variations andball deviation. Toviewthe deviation of the ball from actual track ACCURACYBENEFICIAL REDUCESHUMAN EFFORTS Disadvantages: ERYEXPENSIVE CHALLENGESUMPIRE'SDECISIONS NOT HIGHLYPRECISE Conclusion

Thistechnologyhasmetthehighrealityandaccuracyfeatures.Hawk-E is currentlydevelopingasystemforFootball.Thistechnologyhelpstohavecorrec t

decisionsinanykindofgame.

ECEDEPARTMENT Page30 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# **ChildSafetyWearableDevice**

Shaik.Arif,III-ECEII,RollNo:208A5A0410

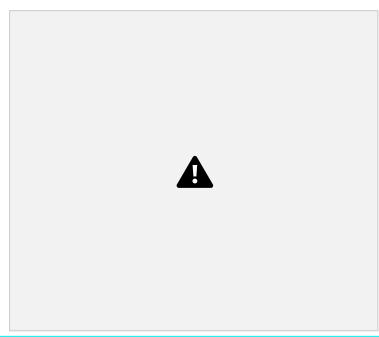
This paper discusses the concept of a smart wearable device for little children. Themajor advantage of this wearable over other wearable is that it can be used in anycellphone and doesn't necessarily require an expensive smartphone and not a verytech savvy individual to operate. The purpose of this device is to help

#### parents

locatetheirchildrenwithease.At

themomenttherearemanywearableinthemarketwhichhelp track the daily activity of children and also help find the child using Wi-Fi andBluetooth services present on the device. But Wi-Fi and Bluetooth appear to be anunreliable medium of communication between the parent and child.

Therefore, the focus of this paper is to have an SMS text enabled communicationmedium between the child's wearable and the parent as the environment for GSM mobile communication is almost present everywhere. The parent can send а textwith specific keywords such as "LOCATION""TEMPERATURE""UV""SOS""BUZZ", etc., the wearable device will reply back with a text containing the real timeaccuratelocationofthechildwhichupontappingwillprovide directionstothechild'slocationonGoogle mapsappand willalsoprovidethe surroundingtemperature, UVradiation index so that the parents can keep track if the temperature or UV radiationis not suitable for the child.



The prime motivation behind this paper is thatwe knowhowimportant technologyisin our lives but it can sometimes can't be trusted, and we always need to have asecondary measure at hand. The secondary measure used in this project is thepeoplepresentinthe

ECEDEPARTMENT Page31

RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS surroundingofthechildwhocouldinstantlyreactforthechild'ssafety till the parents arrive or they could contact the parents and help locate them. The secondary measure implemented was using a bright SOS Light and distressalarm buzzer present on the wearable device which when activated by the parentsvia SMS text should display the SOS signal brightly and sound an alarm which a

ECEDEPARTMENT Page32 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

bystandercaneasilyspotasasignofdistress.Hencethispaperaimsatprovidingparents with a sense of security for their child in today's time.

#### ArtificialEye

In the current scenario, where over millions of people are affected by visualanomalities,itwaswithachallengethatthisprojectcameintobeing.Itaimsatrestori n g vision to the blind. Today,high techresourcesinmicroelectronics,Optoelectronic,computerscience,biomedical engineering and also in vitreo retinal surgery are working together torealize a device for the electrical stimulation of the visual system.

Artificial Eye, which works through retinal implants, could restoresight to millionsofpeople around the world who suffer from degenerative eye diseases. Thistechnologyisstillinitsinfancy, but has progressed to human trials. This reportains to presentabrie for every even about the basic aspects of this technology and where it's headed.



#### Whatisartificialeye?

Anocularprosthesisorartificialeyeisatypeof craniofacialprosthesis thatreplaces anabsentnatural eyefollowinganenucleation, evisceration, ororbitalexenteration. Theprosthesis fitsoveran orbital implant andundertheeyelids.

#### Howeyeswork?

The light coming from an object enters the eye through cornea and pupil. The eyelens converges these light rays to form a real, inverted and diminished image on theretina. The light sensitive cells of the retina get activated with the incidence of lightandgenerateelectricsignals. These electricsignals are sentto the brain interprets the electrical signals in such away that we see animage which is erect and of the same size as the object.

#### **Theeye**

the main part in our visual systemis the eye. Our ability to see is the result of aprocess very similar to that of a camera. A camera needs a lens and a film toproduce an image. In the same way, the eyeball needs a lens (cornea, crystallinelens, vitreous) to refract, or focus the light and a film(retina) on which to focus

therays.Theretinarepresentsthefilminourcamera.Itcapturestheimageandsendsitto the brain to be developed.

ECEDEPARTMENT Page33 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# **BIOCHIP**

N.Sravani,III-ECEII,RollNo:198A1A0486

The first biochip was invented by an American company namely Affymetrix, and theproduct of this company is GeneChip (DNA microarrays). These products comprisethe number of individual DNA sensors used for sensing defects. Biochip plays anessential role in the field of biology research like systems biology as well as diseasebiology while the number of clinical applications is rising. It is a set of microarrayswhichare placedonastrongsurface of asubstratetoallowthousands ofreactionstobe performed in less time. The development of biochip mainly includes thecombination of molecular biology, biochemistry, and genetics. Biochips are used foranalyzing organic molecules connected with a live organism. This article discusseswhat isBiochip, types, biochips and their uses, disadvantages, and its applications.

#### WhatisaBiochip?

A biochipisa setofdiminishedmicroarraysthat are placedon astrong substratethatallows many experiments to be executed at the same time to obtain a high throughputin less time. This device contains millions of sensor elements or biosensors. Not likemicrochips, these are not electronic devices. Each and every biochip can beconsidered as a microreactor that can detect a particular analyte like an enzyme,protein, DNA, biological molecule or antibody. The main function of this chip is toperform hundreds of biological reactions in a few seconds like decoding genes (asequence of DNA).

#### WorkingPrincipleofaBiochip:

TheworkingofBiochipmainlyincludesthefollowingsteps.

- 1. Step1:Theoperatorgeneratesalow-powerelectromagneticfieldthroughradiosignals
- 2. Step2:Thefixedbiochipgetsturnon
- 3. Step3: The activated chip transmits the identification code reverse to the operatorthrough radio signals
- 4. Step4:Readerstrengthensthereceivedcodetochangeitintodigitalformandfinally exhibits it on LCD.

#### ComponentsofBioChips

TheBiochipcomprisestwocomponentsnamelythetransponderaswellasreader.

#### 1)Transponder

Transponders are two types' namely active transponder and passivetransponder. This is a passive transponder which means that it doesn't contain any of its ownenergy or battery whereas in passive, it is not active until the operator activates it bygiving it a low electrical charge. This transponder consists of four parts such asantenna coil, computer microchip, glass capsule, and a tuning capacitor.

- The computermicrochip stores a unique identification (UID)number that rangesfrom 10 digits to 15 digits long.
- Theantennacoilisverysmall, primitiveandthistypeof antenna receive the signals from the scanner or reader.
- Thechargingofthetuningcapacitorcanbedonewiththesmallsignali.e, 1/1000 of a watt which is sent by the operator.

ECEDEPARTMENT Page34 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

Theglasscapsuleholdstheantennacoil, capacitor, andmicrochip, and itismade with a biocompatible material namely soda lime glass.

## 2) Reader

The reader comprises of a coil namely "exciter" and it forms an electromagnetic fieldthrough radio signals. It offers the required energy (<1/1000 of a watt) to activate thebiochip. The reader carries a receiving coil for receiving the ID number or transmittedcode sent back from the excited implanted biochip.

# TypesofBioChips

There arethree types of Biochips available namely DNA microarray, microfluidic chip,and protein microarray.

## 1) DNAMicroarray

A DNA microarray or DNA biochip is a set of tiny DNA spots fixed to a strong surface. A researcher utilizes to calculate the expression levels for a large number of genes. Every DNA mark comprises picomoles of particular genes which are termed asprobes. These can be a short segment of a genetic material under high rigiditysituations. Usually, probe-target hybridization is noticed and counted by recognitionof fluorophore or chemiluminescence labeledtargetsto decide the relative quantity ofnucleic acid series in the target. Innovative arrays of nucleic acid were macro arraysabout 9 cm X 12 cm and the initially automated icon based analysis was published inthe year 1981.

## 2) Microfluidic Chip

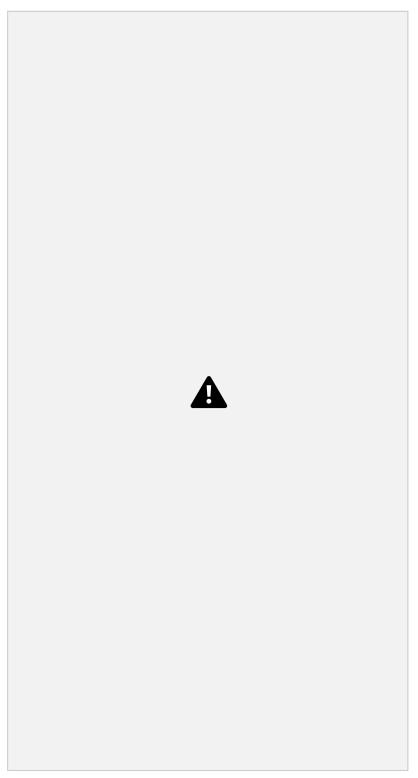
Microfluidic biochips or lab-on-a-chip are a choice to usual biochemical laboratoriesand are transforming several applications like DNA analysis, molecular biologyprocedures, proteomics which is known as the study of proteins and diagnostic ofdiseases (clinical pathology). These chips are becoming more complex by using1000's of components, but those components are designed physically called asbottom-up full-custom plan, which is a very large workforce.

## 3) ProteinMicroarray

A protein microarray or protein chip method is used to follow the actions as well asconnections of proteins, and to find out their function on a large scale. The mainadvantage of protein microarray is that we can track a large number of proteins inparallel. This protein chip comprises of a surface for supporting like microtitre plateor bead, nitrocellulose membrane, the glass slide. These are automated, rapid,economical, very sensitive, consumes less quantity of samples. Thefirstmethodology of protein chips was introduced in antibody microarrays of scientificpublication in the year 1983. The technology behind this chip was guite easy todevelop for DNA microarrays, which have turned into the most generally usedmicroarrays.

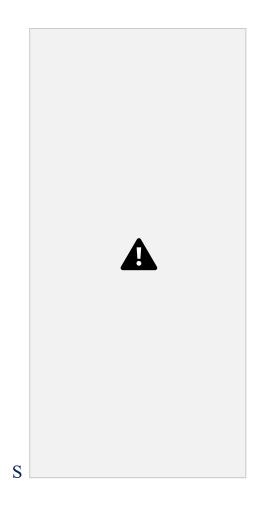
ECEDEPARTMENT Page35 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

**TELUGU ARTICLES** 

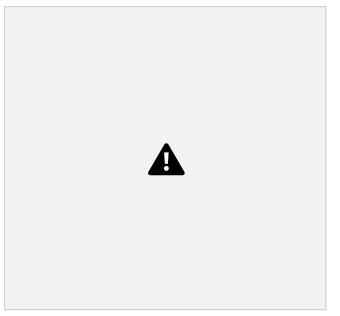


K.Rajesh III<sup>rd</sup> ECE-II 208A5A0409

ECEDEPARTMENT Page36 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTION



N.MaheshBabu III<sup>rd</sup>ECE-I



BalajiPatchav a **IIII<sup>rd</sup>ECE-II** 

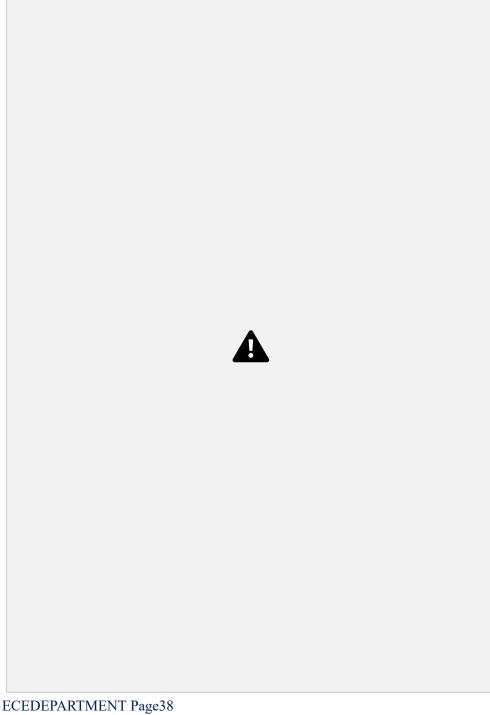
ECEDEPARTMENT Page37 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTION

# s **PAINTINGS**

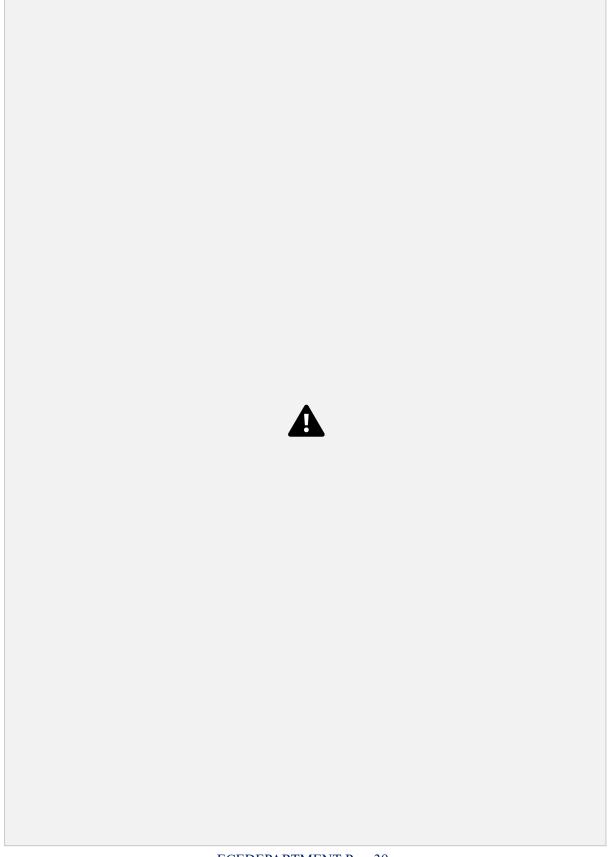
#### ABUDDINGARTIST:

My name is P. Arsritha sree studying 3 rd B.tech in the specialization of ECE .From my child hood , I am very keen about arts .Art is a wide range of human activities that involves creative

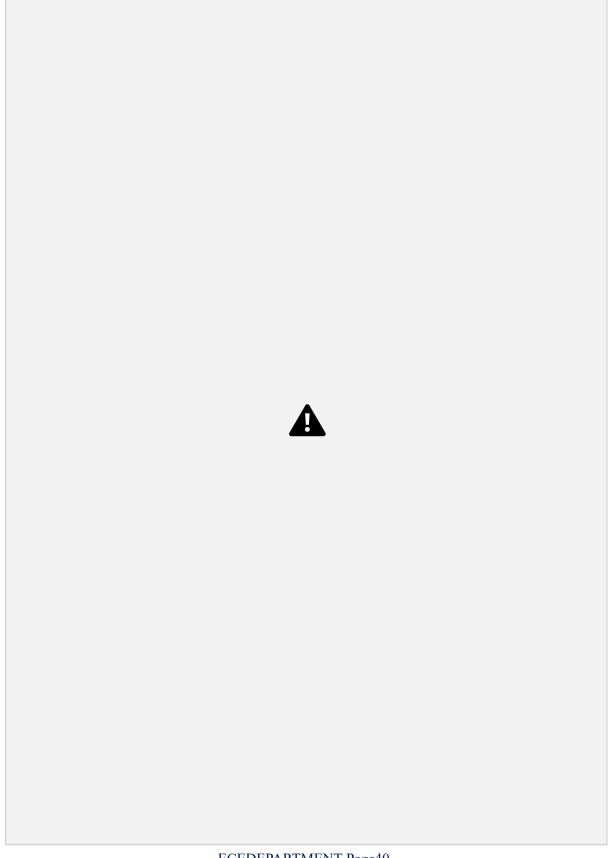
imagination and an aim to express beauty, emotional power or conceptual ideas It is a technique of producing images on an surface, usually a paper by means of ink, graphite or crayons. Drawing as formal artistic creationmightbe defined astheprimarily linear rendition of objects the visible world, as well as of concepts, thoughts, attitudes, emotions and fantasiesHerearesomeofmystencilportraits, coloured pencilarts, penarts, mandalaart line arts.



RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS



ECEDEPARTMENT Page39 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS



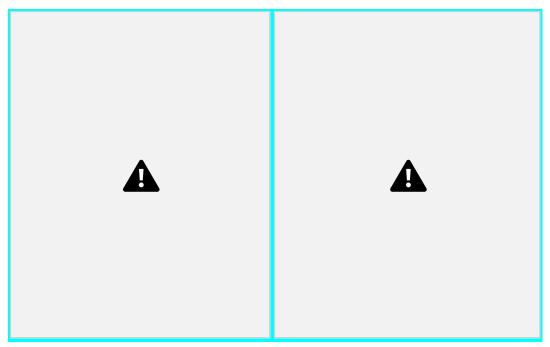
#### ECEDEPARTMENT Page40 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# DIGITALPAINTING:

A **sketch**(ultimatelyfromGreek– schedios,"doneextempore"isarapidlyexecutedfreehand drawing that is not usually intended as a finished work. A sketch mayserveanumber of purposes: it might record something that the artist sees, it might record or developan idea for later use or it might be used as a quick way of graphically demonstrating an image,idea or principle. Sketching is the most inexpensive art medium.

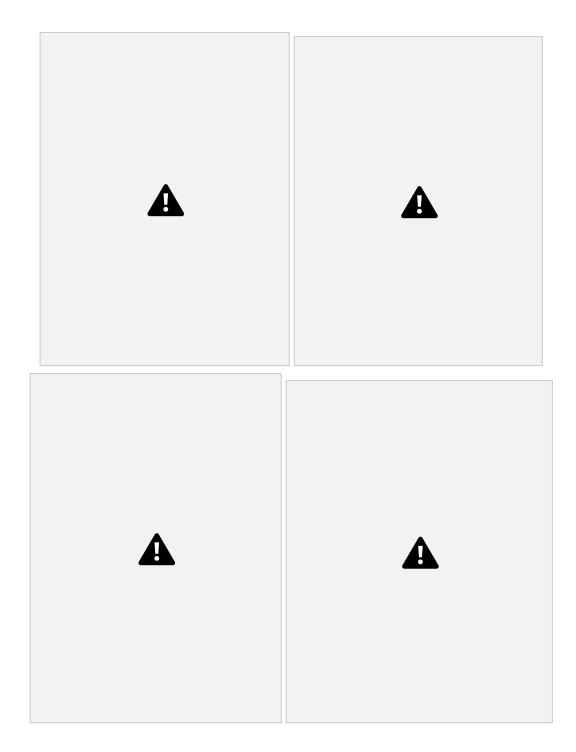
Sketchescanbemadein anydrawingmedium. The termismost often assilverpoint, appliedtographicworkexecuted in a dry medium such graphite,pencil,charcoalorpastel. It may alsoapplytodrawingsexecutedinpenandink,digitalinputsuchasa digitalpen,ballpointpen, marker pen, water colour and oil paint. The latter two are generally referred to as "watercoloursketches" and "oilsketches". Asculptormightmodel three-dimensionalsketches in clay, plasticine<mark>or wax.</mark>

For me Its Not JOB or INCOME SOURCE .Its A Stress buster To me.When is was fell stressedor Any mental Tensions, I Make Skeytch to Dirvert To the mood.



Art By: S.Narendra 208A5A0412 III<sub>RD</sub>YEARECE-II

ECEDEPARTMENT Page41 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS



N.ANANTHALAKSHMI, 198A1A042 8 3<sup>RD</sup>YEAR,ECE-1.

ECEDEPARTMENT Page42 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS







ArtBy: ArtBy: R.CharishmaLakshmi, K.N.S.AsaKamala, 198A1A0435,IIIECE-I 198A1A0415,IIIECE-I

ECEDEPARTMENT Page43 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS



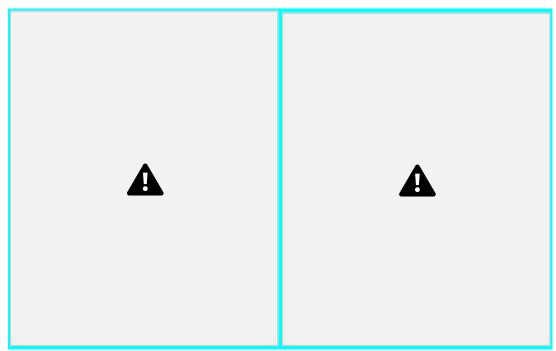
Photographyistheart, application, andpractice of

creatingdurableimagesbyrecordinglight,either electronically by means of an image sensor, or chemically by means of a light-sensitivematerial such as photographic film. Photography is a way to express your ideas for others to see. There is no way to deny that lifefiles by... "Photography is a love affair with life." My photography is the result of being there at a rightmoment. The picture that you took with your camera is the imagination you want to camerawith reality the camera is an excuse to be someplace you otherwise don't belong. we lovephotography because of the exciting moments.

Photography is the perfect way to preserve ones important milestones... Photography is abeautiful experience. Not only we have the opportunity to provide a memorable experience,but we also get to connect with people in a fun way.

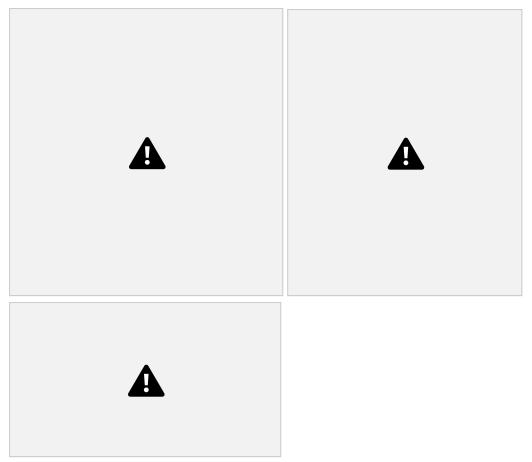
Wetakethephotosastickettothemomentotherwise gone.

"When words become unclear, I shall focus with photographs. When images become in aadequate, I shall be content with silence..."



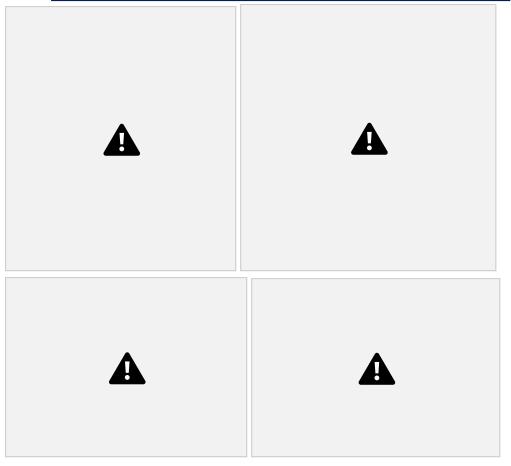
ECEDEPARTMENT Page44 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS





Photographyby **P.VYSHNAVI** 198A1A0488 3<sup>RD</sup>YEAR,ECE-2.

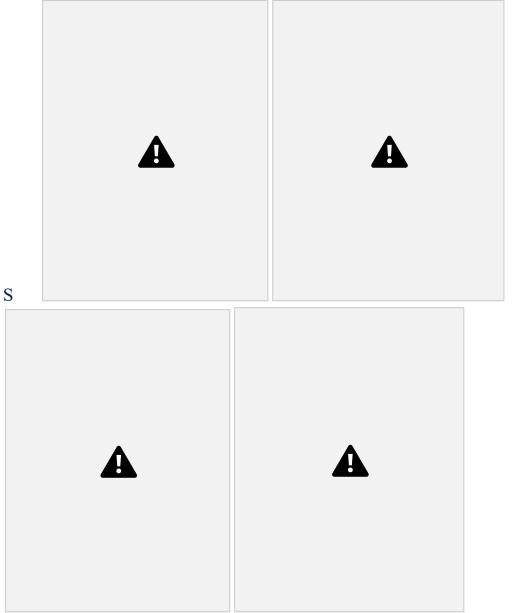
#### ECEDEPARTMENT Page45 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS





Photography by: N.MaheshBabu, 198A1A0454 3<sup>RD</sup>YEAR,ECE-1





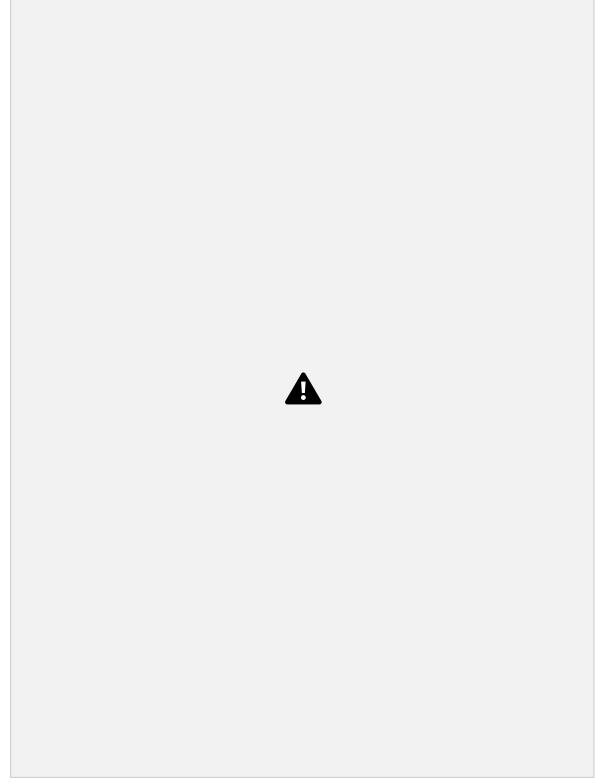


Photographyby: K.N.S.AsaKamala , 198A1A0415 3<sup>RD</sup>YEAR,ECE-1

# ECEDEPARTMENT Page47 <u>RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS</u>

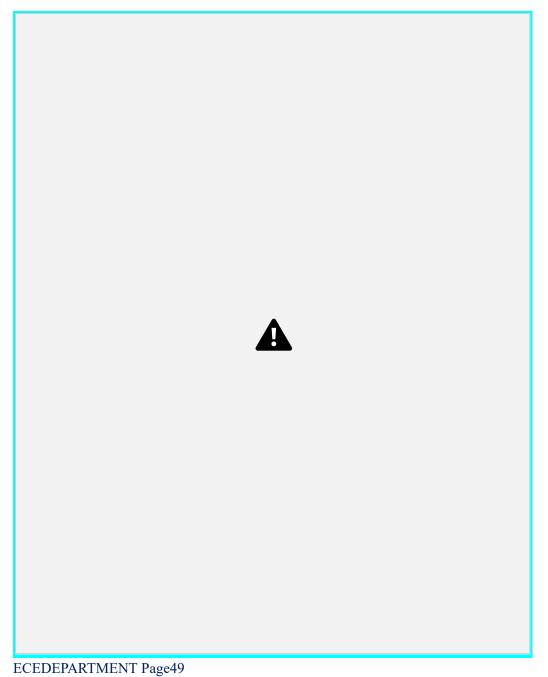
# **EVENTS**

A one week national level online FDP on VERILOG HDL FOR FPGA & EMBEDDED APPLICATINS organized by the ECE department. The resource person is-Mr. M. Madan Gopal, corporate trainer & placement consultant at starVLSI Services pvt. ltd. Bangalore.



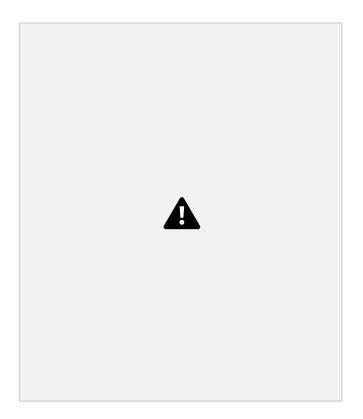
ECEDEPARTMENT Page48 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

A National level webinar on IMPORTANCE OF LEADERSHIP FOR ENGINEERINGSTUDENTS FOR BETTER CAREER PURSUITS organized by the ECE department.Theresource person is Dr. V.Srinivas Ckravarty, Professor, Dept. of Biotechnology, IIT, Madras.



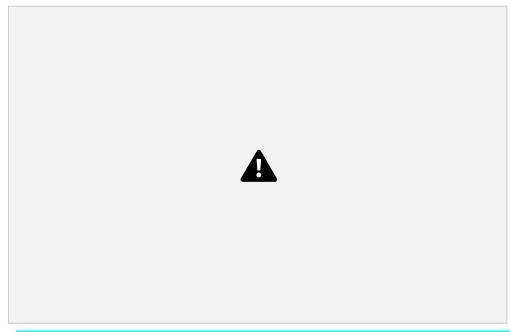
#### **RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS**

A one day nationallevelwebinar on JOB OPPORTUNITIS IN CORE ECE organized by the ECE department. The resource person is- Mr.M.Madan Gopal, corporate trainer & placement consultant at star VLSI Services pvt.ltd. Bangalore.

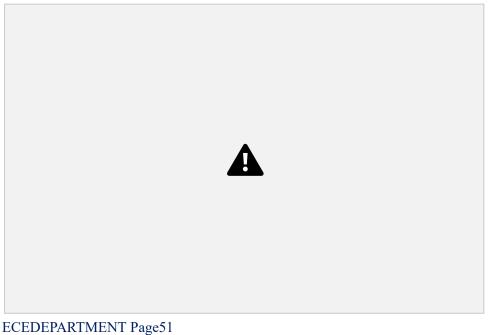


ECEDEPARTMENT Page50
<u>RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS</u> A National level

Webinaron "Non-Orthogonal Multiple Access:Fundamentals and Academic – IndustryPerspectives"bytheECEdepartment.Theresourcepersonis-Dr.SanjeevG, Professor, ECE Department, PES University, Bengaluru.



A<mark>twodayNationalLevelWebinaron"ComputerVisionandImageProcessing–Industrial</mark>Scope from 13<sup>th</sup> to 14<sup>th</sup> July 2020"organized by the ECE department.The resource personis- Dr. Karthik Seemakurthy, Research Scientist, TCS Innovation and Research Labs, Bengaluru.

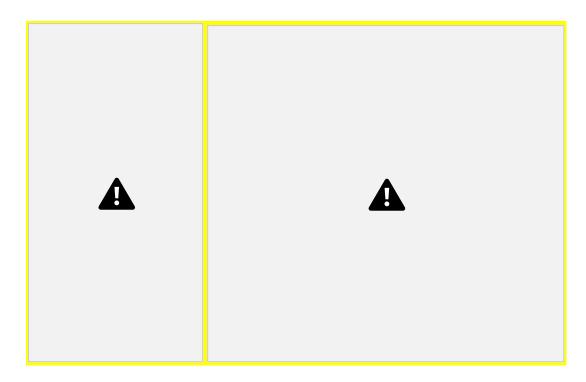


# RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

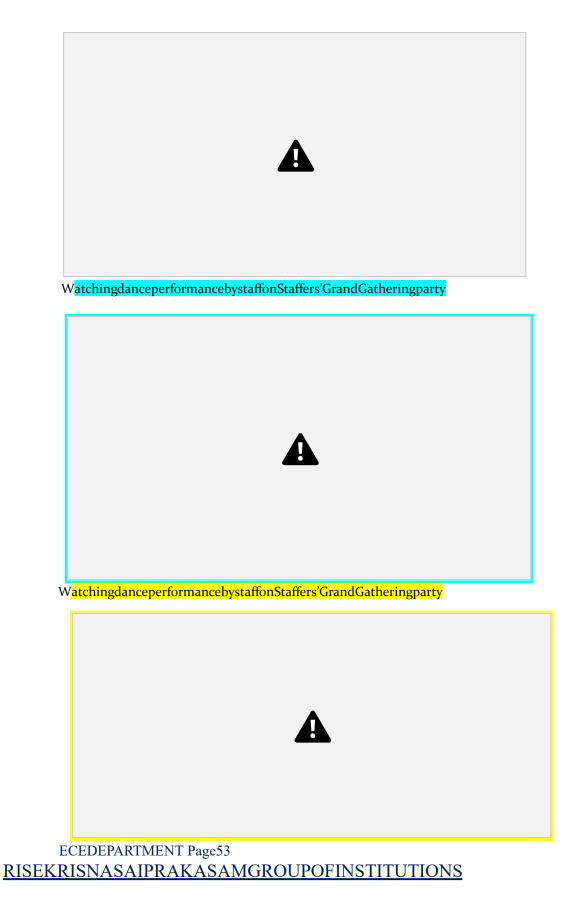
Staffers' Grand Gathering (It'sthepartytimeforcollectivemerriment)conductedbyRise Krishna Sai Group Of Institutions on 27<sup>th</sup> January ,2021.



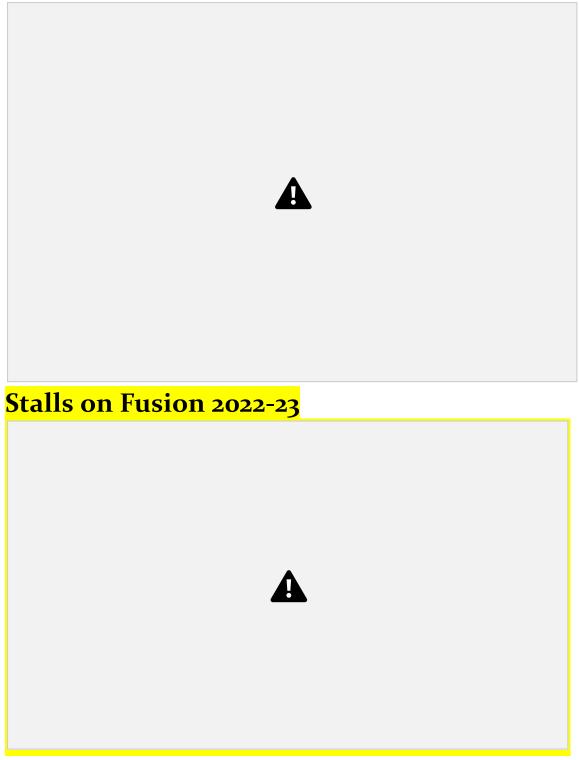
 $\label{eq:principal} Principal's Speech and dance performance by higher of ficials' on Staffers' Grand Gathering party$ 



ECEDEPARTMENT Page52 <u>RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS</u> Watchingdanceperformancebyhigherofficials'onStaffers'GrandGatheringparty



Fusion 2022-23 on 27<sup>th</sup> February conducted by Rise Krishna Sai Group Of Institutions, Ongole, Prakasam (Dt).



ECEDEPARTMENT Page54 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

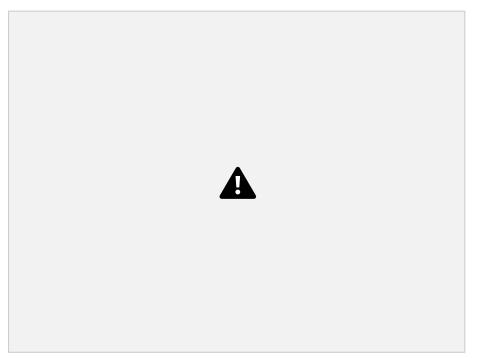


### **Stall Members :**

• S.Narendra •	II <sup>nd</sup> ECE-II
SK.Arif	II <sup>nd</sup> ECE-II
• T.Sreenu	II <sup>nd</sup> ECE-II
• SK.Asif	II <sup>nd</sup> ECE-II
• K.AshokKumar	

II<sup>nd</sup>ECE-II

### Stall by II ECE girls on Fusion 2022-23



ECEDEPARTMENT Page55 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTION

S Dance Performance on Fusion 2022-23



### Prize Distribution on Fusion 2022-23

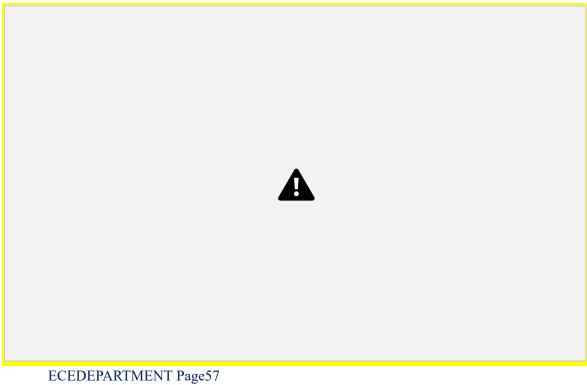


ECEDEPARTMENT Page56 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# CRT Class attended by II ECE students on 05<sup>th</sup>March,2023



#### CRT Class conducted by S. Arun Kumar

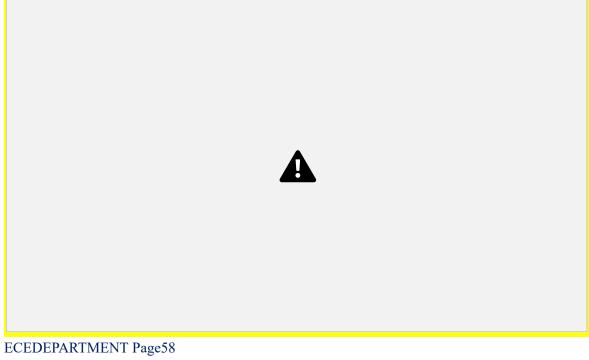


RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# CRT Class attended by II ECE students on 05<sup>th</sup>March,2023

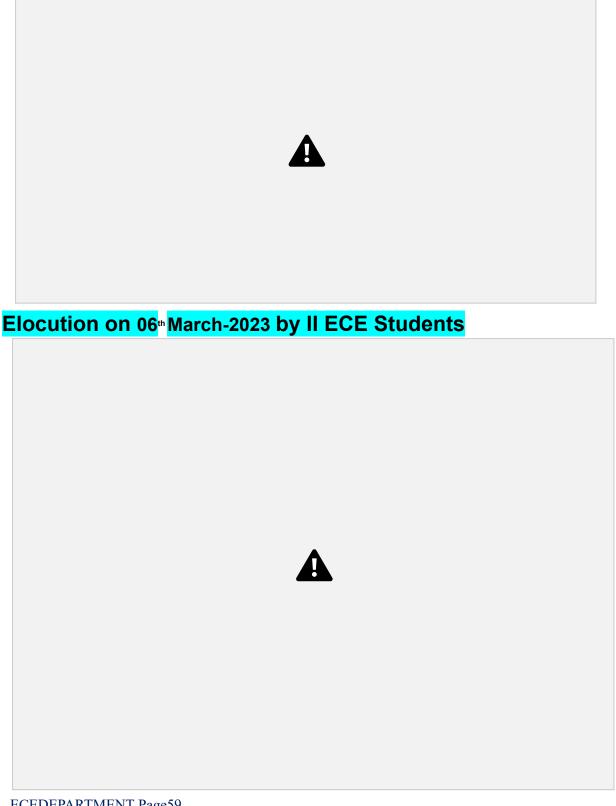


#### II ECE students with CRT Class Trainer S.ArunKumar



**RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS** 

Elocution on 6<sup>th</sup>March-2023 by II ECE Students



ECEDEPARTMENT Page59 <u>RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS</u>

RISE Codetantra conducted by Rise Krishna Sai Group Of Institutions, Ongole, Prakasam (Dt).



The RISE Krishna Sai Group of Institutions chairman Sidda Venkateswara Rao announcedthat they are introducing a tool, Code Tantra for the first time to students to practice softwarecoding effectively. The CEO of Code Tantra, TSV Ramana said the tool is the best platform improve their coding skills. He said that the student can log into their account fromanywhere and continue the practice of coding.

They said that as part of their efforts to provide the best teaching facilities, they introduced anew 250 computer lab in the college. The noted writer Yandamuri Veerendranath alsoappreciated the college for their concern towards the career of the students. The collegedirector AVBhaskara Rao, principal Dr KVSubrahmanyam, ProfessorJV Raman, and HoDsof various departments also participated in the programme.

Prize Distribution by Principal Sir



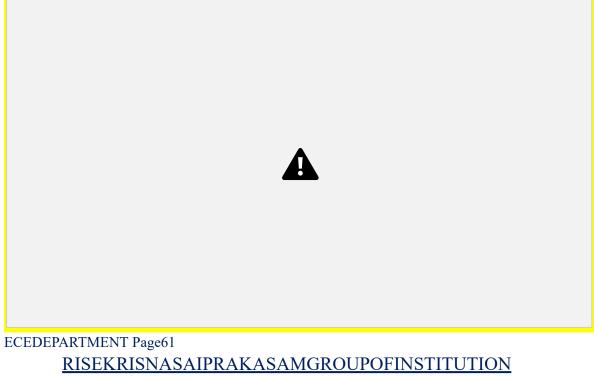
ECEDEPARTMENT Page60

RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS 2023

**freshers'party** conducted by Rise Krishna Sai Group Of Institutions, Ongole, Prakasam (Dt).

Watching the arrangements by Principal sir

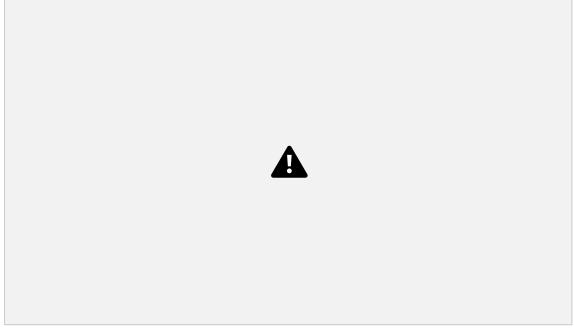




**<u>S</u>** Dance Performance on fresher's party by freshers

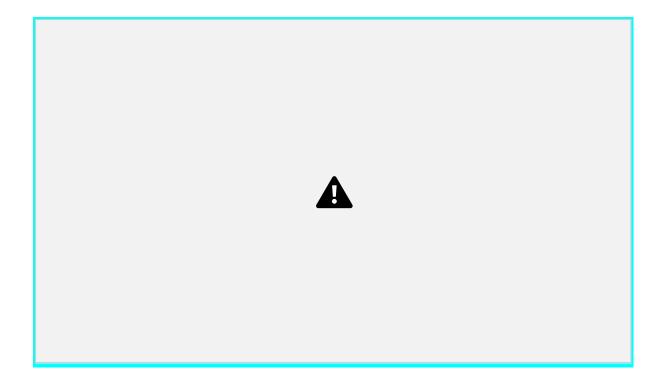


Dance Performance on fresher's party by Aravind and Anji IIECE



ECEDEPARTMENT Page62
<u>RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS</u>Flash

mob Performance on fresher's party by II ECE girls



ECEDEPARTMENT Page63 RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS

# **PLACEMENTS:**

S. No	Roll No.	Name of the Student	Name of the Company
1	198A1A0402	ANNAPAREDDY ADILAKSHMI	ALLSEC TECHNOLOGIES
2	198A1A0420	KONIJETI JYOTHIRMAI	ALLSEC TECHNOLOGIES

198A1A0431	PERLA VENKATA NAGA SAI SRUTHI LAYA	ALLSEC TECHNOLOGIES
198A1A0460	SURABHI SARATH CHANDRA	ALLSEC TECHNOLOGIES
198A1A0482	LAKKAM SRIVANI	ALLSEC TECHNOLOGIES
198A1A0497	SOLASA VASANTHA	ALLSEC TECHNOLOGIES
208A5A0405	KUNCHALA SUNITHA	ALLSEC TECHNOLOGIES
198A1A0439	THATIPARTHI VENKATA PRATHYUSHA	DATALOGICS
208A5A0407	SETTIPALLI AMULYA	DATALOGICS
198A1A0410	CHANDA BRAMARA LAKSHMI SAILAJA	DEVELOP TREES
198A1A0413	GUNDREDDY LAKSHMI TEJASWINI	DEVELOP TREES
198A1A0416	KATTEBOYINA SOWMYA	DEVELOP TREES
198A1A0437	SHAIK AYESHA	DEVELOP TREES
198A1A0468	CHITIRALA NAGA SATHWIKA	DHARANI INFO TECHNOLOGIES
198A1A0485	MULE DHARANI	DHARANI INFO TECHNOLOGIES
198A1A04A0	THOTA SRAVANI	DHARANI INFO TECHNOLOGIES
208A5A0401	AMIRNENI SRAVANI	DHARANI INFO TECHNOLOGIES
198A1A0412	GANJI THULASI	EOS
198A1A0418	KOKKILIGADDA VYSHNAVI	EOS
198A1A0433	POLINEDI VENKATA PRIYANKA	EOS
198A1A0440	UPPALAPATI GAYATHRI	EOS
198A1A0461	VANKAYALA MOHAN SAI KRISHNA	EOS
198A1A0467	CHIRUMAMILLA SAI ANJANA PRAVALLIKA	EOS
198A1A0470	DAMAVARAPU PAVANI	EOS
198A1A0477	KAKUMANI VAISHNAVI	EOS
198A1A0481	KOKKILIGADDA LAKSHMI	EOS
	198A1A0460         198A1A0482         198A1A0497         208A5A0405         198A1A0439         208A5A0407         198A1A0430         198A1A0413         198A1A0437         198A1A04437         198A1A04437         198A1A04437         198A1A04437         198A1A04433         198A1A04434         198A1A04433         198A1A04433	Image: constraint of the second sec

ECEDEPARTMENT Page64 <u>RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS</u>

27	198A1A0483	MAMIDALA CHARANYA	EOS
28	198A1A0489	PODILI AMRUTHA VANI	EOS
29	198A1A0490	POKALA LOHITHAKSHI	EOS
30	198A1A0492	PUNNAVAJJELA SARANYA SRI	EOS

31	198A1A0493	SAMKARAMANCHI SRI SAI KRISHNA TEJASWANI	EOS
32	198A1A0498	TALLURI AMULYA	EOS
33	208A5A0409	KOMARNENI RAJESH	EOS
34	198A1A0401	AMARA GEERVANI	HCL
35	198A1A0405	BHEEMAVARAPU VENKATA BHAVYA	HCL
36	198A1A0406	BODAPATI SAI YASWITHA	HCL
37	198A1A0409	CHAMARTHY SINDHURA	HCL
38	198A1A0415	KANAMARLAPUDI NAGA SAI ASA KAMALA	HCL
39	198A1A0427	MORUBOINA VENKATA NAGA SAI KEERTHI	HCL
40	198A1A0452	MEDIKONDA SRIKANTH	HCL
41	198A1A0457	NIMMAGADDA RAMAKRISHNA	HCL
42	198A1A0458	SANAGAPALLI SABDANANDA SWAROOP	HCL
43	198A1A0472	EERLA YAMINI	HCL
44	198A1A0486	NAGINENI SRAVANI	HCL
45	198A1A0487	PANEM VENKATA KARISHMA	HCL
46	198A1A0494	SANAM PRIYA VARSHINI	HCL
47	198A1A0495	SANNEBOINA PAVANI	HCL
48	198A1A04C4	VANGAPALLI ARAVIND	HCL
49	208A5A0402	BONDA VENKATAVISHNUPRIYA	HCL
50	208A5A0404	DRONADULA SIREESHA	HCL
51	198A1A0404	BANDARU PRABHAVATHI	INSUGO
52	198A1A0479	KESAMREDDY MANEESHA	INSUGO
53	198A1A0478	KAVITHA CHINTALA	JAJI TECHNOLOGIES

		]	ECEDEPARTMENT Page65
RISEK	<u> XRISNASAIPRAKASAMGR</u>	<b>OUPOFINS</b>	<b>STITUTIONS</b>

54	4 198A1A04A9	KONDARU ASHOK KUMAR	JAJI TECHNOLOGIES
55	5 198A1A0436	SANNEBOYINA GIRIVARSHINI	M-CORE
56	5 198A1A0446	IMMADISETTY JAYAVARDHAN RAO	NVH
57	7 198A1A0455	NANGU RAMA KRISHNA REDDY	NVH

58	198A1A04A6	AMARA AMARNATH	NVH
59	208A5A0408	KAVALI ARAVIND	NVH
60	208A5A0412	SURISETTY NARENDRA	NVH
61	198A1A0484	MARRIPUDI KAVYA	SNOVASYS
62	198A1A0411	GADDAM YAMINI	SUTHERLAND
63	198A1A0421	MADALA VINEETHA LAKSHMI	SUTHERLAND
64	198A1A0428	NALLABOTHULA ANANTHA LAKSHMI	SUTHERLAND
65	198A1A0435	RAVVA CHARISHMA LAKSHMI	SUTHERLAND
66	198A1A0438	SUREKHA KUKATLA	SUTHERLAND
67	198A1A0471	EARLA LAKSHMI PRASANNA	SUTHERLAND
68	198A1A0476	JYOTHSHNA PRIYANKA UMMADI	SUTHERLAND
69	198A1A04A3	VARIKALLU KALYANI	SUTHERLAND
70	198A1A04A5	YENDLURI SOWMYA	SUTHERLAND
71	198A1A04B3	PATCHAVA BALAJI	SUTHERLAND
72	198A1A04C3	UMMADIPOLU VENKATA SRINIVASULU	SUTHERLAND
73	208A5A0410	SHAIK ARIF	SUTHERLAND
74	198A1A0417	KESAMREDDY MADHURI	TCS
75	198A1A0434	POLINENI VENKATA VIJETHA	TCS
76	198A1A0441	UPPALAPATI POOJA	TCS
77	198A1A0499	TANNEERU BHANU PRIYA	TCS
78	198A1A0422	MADDELA DHATRIKA SAI LAKSHMI	TECH MAHINDRA
79	198A1A0463	YELCHURI PAVAN	TECH MAHINDRA
80	198A1A0465	CHAKKA LAKSHMI NIHARIKA	TECH MAHINDRA
81	198A1A0442	UPPULURI VINDHYA SRI	TECH OUTS
82	198A1A04A2	VARADA LAKSHMI SIREESHA	TECH OUTS
83	19851A0424	MULE SIRISHA	ZENTREE LABS

ECEDEPARTMENT Page66 <u>RISEKRISNASAIPRAKASAMGROUPOFINSTITUTIONS</u>

84	198A1A0419	KONDA SONY	ZENTREE LABS
85	198A1A0425	MARTA MEGHA LAKSHMI	ZENTREE LABS
86	198A1A0430	PERAM NAGA ANJALI	ZENTREE LABS

87	198A1A0432	POKURI VENKATA JYOTHIRMAI	ZENTREE LABS
88	198A1A0448	KAKARLAPUDI VENKATESWARA RAJU	ZENTREE LABS
89	198A1A0466	CHILAKAPATI KALYANI	ZENTREE LABS
90	198A1A0473	GUDIPALLI LIKHITHA	ZENTREE LABS
91	198A1A0480	KOKKILIGADDA KEERTHI	ZENTREE LABS
92	198A1A0491	POTHAKAMURI ASRITHA SREE	ZENTREE LABS
93	198A1A0496	SARIKUKKA RAJESWARI	ZENTREE LABS
94	198A1A04A4	YARRABOINA AMARA SRAVANI	ZENTREE LABS
95	198A1A04B0	MENTA HEMANTH KUMAR	ZENTREE LABS
96	198A1A04B8	SUDA YESU BABU	ZENTREE LABS
97	208A5A0403	CHINTALA MAHIP SINDHU	ZENTREE LABS
98	208A5A0413	TIPPASANI SREENU	ZENTREE LABS

ECEDEPARTMENT Page67

