

INTERNET PERUMAL
MALINENI PERUMALLU
IONALSOCIETY'S GROUP OF INSTI

ELECTROVISION

Electronics & Communication Engineering

MAGAZI



MAN'S MESSAGE

es that the unemployment in the country can be
nical skills to the youth. This strong concept, has
and he is working to achieve his cherished goal.

MALINENI PERUMALLU EDUCATIONAL SOCIETY is
as Deemed University of Excellence in Technical
as honored with HEALTH CARE INTERNATIONAL
ducation for 2005 at Hyderabad by the Honorable
armana Prasada Rao. What more proof do we
sense of service to the student community that he



The biggest challenge
today is to prepare students for the
world. Students of today face
demands new knowledge and ab
the students to become adapta
ever-changing scenario of new ski

OUR HOD'S MESSAGE

The department of Electronics and
Communication Engineering was established
during the inception of the college in the year
2002, with a vision to produce competent
engineers capable of adding value to professional
standards. The Department of ECE is dedicated
towards grooming students and making them
ready to meet the requirements of this
competitive and rapidly evolving sector.

The department has well qualified faculty
experience in academics, research and industry.
department are well equipped with sophisticated ec
EDA tools in the fields of Embedded Systems,
Processing. he department emphasizes on the devel
the students to complement their theoretical kn
department organizes periodical training program
students with the latest technologies apart from t
department has a vibrant learning environment where
members nurture the spirit of innovation, creativity a
the advancement of technology. The department has
highly accomplished alumni since its inception. Th

ENT



The Department of ECE has an intake of students and is also offering M.Tech program in VLSI. We are indeed fortunate to have an excellent team of faculty and support staff members who are committed to providing quality technical education with patience and sincerity. The department has well equipped laboratories to cater to the needs of the curriculum effectively. These laboratories are well planned and all these laboratories are equipped with the latest equipment.

The faculty members of this department play an active role in various college activities like conducting Workshops, National Level Technical Festivals, Freshers and Farewell day etc. Personal attention is given as part of the department's teaching program.

The department has good interaction and rapport amongst its faculty and the students. The faculty members are also taking an active role in sports like badminton, table tennis etc. Several students have participated in various seminars, and technical quizzes. It is a proud moment for the department that its alumni have occupied various reputed organizations and some have pursued higher education in esteemed universities in Germany and Australia.



ence in Communication
neering with focus on
petent technocrats.

Department Mission:

Practicing futuristic teaching
ing methods with
ronic Design Automation
) tools.

Promote trainings to provide
learning capabilities for
holders.

Provide Quality Infrastructure
to innovation.

Final Objectives

to work in industry with
communication skill to link
ering to the real world
n the design and analysis of



C.V RAMAN

Sir Chandrasekhar Venkata Raman

November 1894 - 21 November 1970) was an Indian physicist born in the Tanjore District of the Madras Province in India (presently the state of Tamil Nadu). He carried out ground-breaking work in the field of light scattering, which earned him the 1930 Nobel Prize for Physics. He was the first person in Asia to obtain said award for achievement in science. He discovered that when light traverses a transparent medium, the deflected light changes wavelength and

This phenomenon, subsequently known as Raman scattering, is called the Raman effect. In the year 1954, the Indian government honored him with India's highest civilian award, the Bharat Ratna.

In 1909, J.D. N. Tata established the Indian Institute of Science to nurture scientific talent in India. The Mysore King provided 150 hectares of land for the construction of the institute started with the confidence of the British rulers. During the construction work, the British government appointed its director there. The first two directors of the institution were also English.

In 1933, Venkatraman became the first Indian director of the Indian Institute of Science. At that time a lot of money was being spent in the name of the institute. But the quality of scientific talent was negligible. In this situation, C. V. Raman disseminated the knowledge of the propagation of science throughout the country. He made a very creative use of the resources of the programs of the institution. By doing this, they wanted to improve that institution. He planted greenery at the Indian Institute of Science. Flowering plants were also planted. The Indian institute became a major center of attraction.

Raman
was honored with a
large number of





BOOK LUNCH

11-12-2018 AND 15-12-2018

FOR STUDENTS FROM II & III ECE

LAUNCH OF BOOK ON BLOCK CHAIN

TECHNOLOGY



BOOT CAMP ON BLOCK CHAIN

DATE: 09-2-2019

FOR II & III ECE STUDENTS

RESOURCE PERSONS : PANKAJ DIWAN ,

**SCI LAB
RESOURCE PERSONS VISITED: APSSDC**

MR. R.SIVARANGANAYAKULU

MS.D.GIREESHA

MS.SK.RUBEENA

DATE: 11-02-2019 AND 13-02-2019

SUBJECT: SCILAB

AUDIENCE: MPES III ECE STUDENTS



EMBEDDED SYSTEMS

RESOURCE PERSONS VISITED: APSSDC

MR. NAGA RAJU

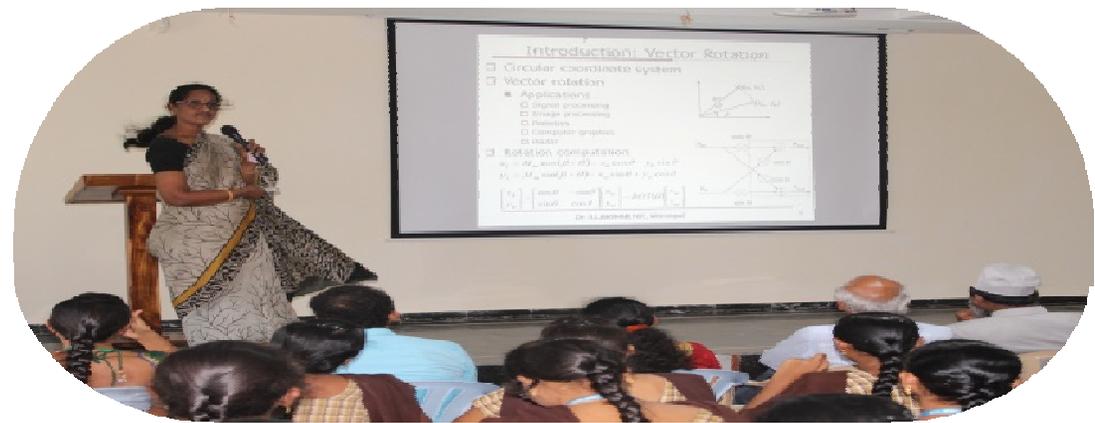
DATE: 03-01-2019 AND 05-01-2019





GAMIFICATION WITH AR & VR B
RESOURCE PERSONS VISITED: APS
MS..K.SRI RAMA ALEKHYA
MS. B.SAHITHI
DATE: 14-02-2019 AND 16-02-2019
SUBJECT: GAMIFICATION WITH AR
AUDIENCE: MPES II ECE STUDENTS

Guest lectures



A MULTIPLIER-LESS VLSI ARCHITECTURES OF SIGNAL PROCESSING ALGOR
RESOURCE PERSONS VISITED:
DR. SHAIK .RAFI AHAMED, IIT, GOWHATHI
DR.B.LAKSHMI , NIT ,WARANGAL



“ WELCOME TO INDUSTRY”

SPEAKER: MR. V. NAGESWARA RAO, DY. MANAGER

BIRLA CORPORATION LTD

STUDENTS: III & IV B.TECH ECE STUDENTS

DATE: 18-02-2019

INDUSTRIAL VISITS

CYCLONE DETECTION RADAR STATION

MACHILLIPATNAM

DATE: 24-07-2018

STUDENTS: MPES IV ECE B STUDENTS



EFFTRONICS PVT. LTD,

VIJAYAWADA

DATE: 11-08-2018



EFFTRONIC

VIJAYAWADA

DATE: 18-08-



SIEMENS

DATE: 16-11-2018

STUDENTS : IV YEAR ECE
STUDENTS

ALL HODS & MRS. HEMA
CHOWDARY



MEMORABLE MOMENTS

DAY



MAKARA





REPUBLIC DAY



ANNUAL DAY CELEBRATIONS



is a gravity-powered lamp designed by the company Deciwatt for use in developing world nations, as a replacement for kerosene lamps. It uses a bag filled with rocks or soil, which slowly descends similar to the weight drive in a cuckoo clock. This action generates light for up to twenty minutes.

The lamp consists of an LED bulb fixed to an adjustable lamp that can be hooked up on a wall. It also comprises a pulley mechanism and a ballast bag hanging from the lamp. The lamp can hold up to 9 kg of rock, sand or soil. ... The converted energy then generates **light**. The lamp is currently at prototype stage on crowd funding site Indiegogo, but the target retail **cost** is \$15 (around £3). "The villagers' investment is returned within three months of being able to use a kerosene lamp," says Jim Reeves.

The research initiative on how to harness off-grid energy for low-power electronics, a pair of researchers created a **lamp** that uses **gravity** to generate **light**. Martin Riddiford, co-inventor of the lamp, has no plans for the innovative project.

The operating costs after the initial purchase of the appliance. A standard Gravity Light kit includes the lamp and a ballast bag. The light can be turned on by filling the bag with soil or weight¹ (10 kg) and lifting it up to the base of the device; the weight falls over a pulley, pulling a cord/strap that spins gears and drives an electric generator, which powers the LED. This creates enough energy to last 25 minutes whenever it is needed.

The kit also includes two Sat Lights and connecting cables. These are separate lights that connect to the main Gravity Light unit. Each Sat Light can be turned on or off separately. When the main Gravity Light unit can be turned on or off. Up to 4 Sat Lights can be connected, allowing light in different locations in the house. The rate of the bag drop is almost not affected by the weight of the bag.

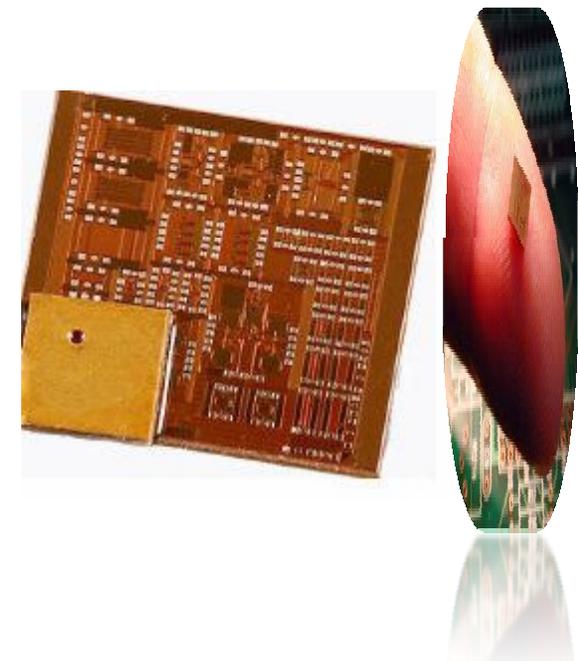
The Gravity Light used a strap for pulling up and down. The Gravity Light GL02 used a plastic-bead chain on a



it wireless refers to a wireless communication at a data rate of more than per second.

The trade press used the term "Gi-Fi" to refer to faster versions of the IEEE standard under the trademark Wi-Fi.

Researchers at the University of Melbourne demonstrated a transceiver integrated circuit (chip) that operated at 60 GHz on the CMOS process. It will transfer audio and video data at up to 5 gigabits per second, ten times the current transfer rate, at one-tenth the cost. Researchers chose the 57–64 GHz band since the millimeter-wave range of the spectrum allowed high integration as well as the integration of very small high gain arrays. The spectrum results in very high data rates, up to 5 gigabits per second to users in an environment, usually within a range of 10 meters. Some press reports called this technology developed by Melbourne University-based laboratories of NICTA (National ICT Australia's Information and Communications Technology Research Centre of



set in Gi-Fi technology by offering reduced size and power consumption, can be used to send and receive large files. It is able to transfer gigabits of data within seconds and therefore it can be used for huge data file transmission instead of HDMI (High- Definition Multimedia Interface) cables and could develop wireless home and office of future. This is a good news for personal area networking because there is no internet infrastructure available to copy it with the prototype may be less than a year away. With the help of Gi-Fi chips the videos sharing can be possible with Australia's most lucrative technologies.

Multi-gigabit wireless system provides Multi-gigabit wireless technology that removes the need for cables between devices. It is 100 times faster than current short-range wireless technologies such as Bluetooth and Wi-Fi. This technology can satisfy the communication needs of multiple customers within a small geographic region.



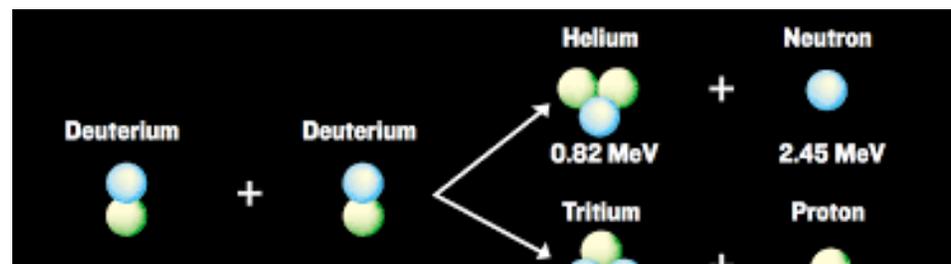
a piezoelectric crystal attached to liquid filled Pyrex flask send pressure exciting the motion of tiny gas bubbles. The bubbles periodically grow and the flashes of light

g these light emitting bubbles speculated that their interiors might reach and pressure they could trigger fusion reaction. Tiny bubbles imploded by hydrogen nuclei fuse- and may one day become a revolutionary new energy

bubble in a liquid is excited by ultrasonic acoustic waves it can emit short of extreme temperatures inside the bubble. These flashes of light known as as the bubble implode or cavitates. It is show that chemical reactions occur angle, isolated bubble and yield of photons, radicals and ions formed. That is n convert sound energy in to light.

nce also called single-bubble sonoluminescence involves a single gas bubble flask by a pressure field. For this loud speakers are used to create pressure naturally occurring gas bubbles are used. These bubbles can not withstand the er than about 170 kilopascals. Pressures higher than about 170 kilopascals e bubble from its stable position and disperse it in the liquid. A pressure at ssure level to implode the bubbles is necessary to trigger thermonuclear usion overcomes these limitations.

echnically known as acoustic inertial confinement fusion. In this we have a an a single bubble) is significant since when the bubble cluster implodes the le cluster may be greatly intensified.





STUDENTS ARTICLE

Information storage system:

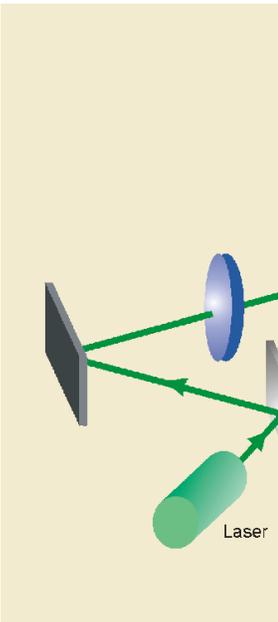
Holographic storage is a potential technology in the area of high-capacity data storage. While magnetic devices rely on individual bits being stored as distinct magnetic or optical changes on the medium, holographic data storage records information throughout the volume of the medium by storing multiple images in the same area utilizing light at different angles.

Unlike magnetic and optical data storage records information a bit at a time in a linear fashion, holographic storage is capable of recording and reading millions of bits in parallel, enabling data transfer rates greater than traditional optical storage.

Holographic data storage contains information using an optical interference pattern within a thick, photosensitive material. Light from a single laser beam is divided into two, or more, separate optical patterns of light. By adjusting the reference beam angle, wavelength, or media position, a multitude of holograms (thousands) can be stored on a single volume.

Holographic data is read through the reproduction of the same reference beam used to create the hologram. The beam is focused on the photosensitive material, illuminating the appropriate interference pattern, which is then diffracted by the interference pattern, and projects the pattern onto a detector. The detector is capable of reading millions of bits in parallel, over one million bits at once, resulting in the fast data transfer rate. Files on the medium can be accessed in less than 0.2 seconds.

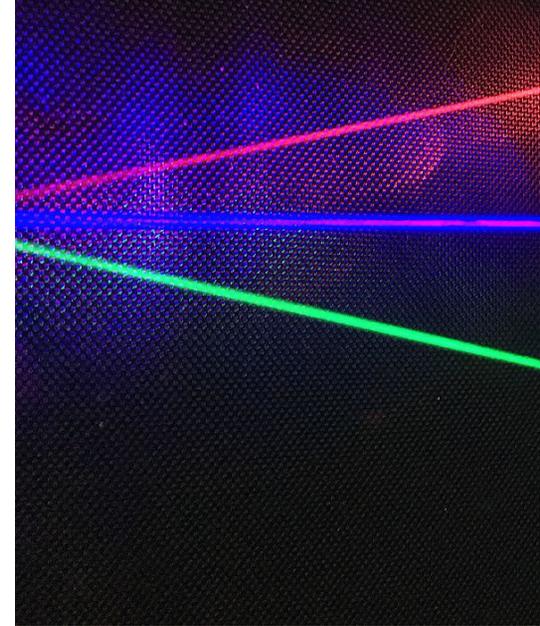
Technologies such as **holographic memory** provides a viable solution to the extreme amount of **data** which



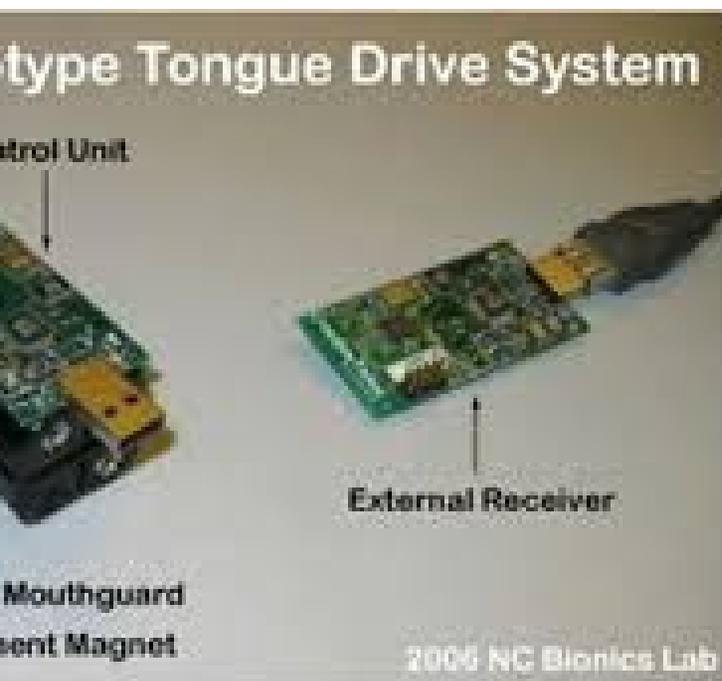
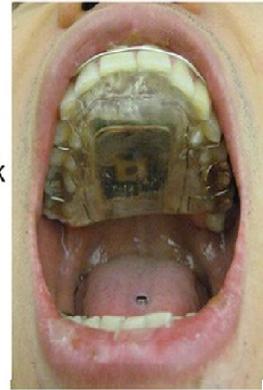
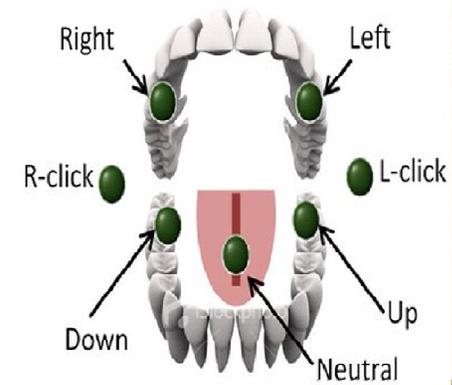
ent colors to produce a combined spot that is scanned and projected across
ygon-mirror system or less effectively by optoelectronic means to produce a
ne systems work either by scanning the entire picture a dot at a time and
ly at high frequency, much like the electron beams in a cathode ray tube, or by
en modulating the laser and scanning a line at a time, the line itself being
me way as with digital light processing (DLP).

for television or video display was originally proposed by Helmut K.V. Lotsch
93 .844. In December 1977 H.K.V. Lotsch and F. Schroeter explained laser color
al as well as projection-type systems and gave examples of potential
r the German-based company Schneider AG presented a functional laser-TV
in/Germany. Due to bankruptcy of Schneider AG, however, the prototype was
to a market-ready product Proposed in 1966, laser illumination technology
used in commercially viable consumer products. At the Las Vegas Consumer
06, Novalux Inc., developer of Necsel semiconductor laser technology,
illumination source for projection displays and a prototype rear-projection
n the development of a commercial Laser TV were published as early as
decision on the large-scale availability of laser televisions expected by early
2008, at an event associated with the Consumer Electronics Show
electronics America, a key player in high-performance red-laser and large-screen
eir first commercial Laser TV, a 65" 1080p model. A *Popular Science* writer was
dering of a Mitsubishi laser video display at CES 2008. Some even described it
e point of seeming artificial. This Laser TV, branded "Mitsubishi Laser VU TV",
5, 2008 for \$6,999, but Mitsubishi's entire laser TV project was killed in 2012.

LG introduced a front projected laser TV in 2013 as
a consumer product that displays images and videos measuring
100 inches (254 centimeters) with a full high-
definition resolution of 1920 x 1080 pixels. It can project images
onto the screen at a distance of 22 inches (56 centimeters).



severely disabled people for operating an assistive device. Tongue
y of Hall-effect magnetic sensors mounted on a dental retainer on the
h to measure the magnetic field generated by a small permanent
tongue. The sensor signals are transmitted across a wireless link and
he movements of a cursor on a computer screen or to operate a
a phone, or other equipments. The principal advantage of this
bility of capturing a large variety of tongue movements by processing a
outputs. This would provide the user with a smooth proportional
a switch based on/off control that is the basis of most existing
eled the effects of position and orientation of the permanent magnet
AB and experimentally measured them. We built a prototype system
nponents and tested it successfully by developing a graphical user
IEW environment. A small battery powered wireless mouthpiece with
is under development



Assistive technologies help improving the quality of life for severely disabled individuals by enabling them to pursue self-care, educational, vocational, and recreational activities. Tongue has a set of unique characteristics that makes it a suitable appendage for manipulating paralyzed individuals' environments through the use of tongue-operated assistive devices. A number of these devices have been reviewed and a new one, called Tongue Drive, has been introduced.

body. The design may be for functional working with human tools and environments, such as the study of bipedal locomotion, in general, humanoid robots have a torso, a head, and two legs, though some forms of humanoid robots lack part of the body, for example, from the waist down. Some robots also have heads designed to replicate human features such as eyes and mouths. Androids are designed to aesthetically resemble humans.

Humanoids are now used as research tools in several laboratories where researchers study the human body structure and how to build humanoid robots. On the other hand, the study of how to emulate the human body leads to a better understanding of human cognition is a field of study which is called cognitive robotics. It is a field of study which is concerned with how to learn from sensory information in order to improve a robot's motor skills. This knowledge is used to create models of human behavior and it has been



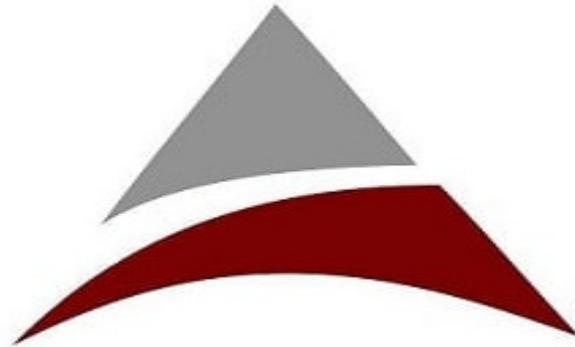
assistance, through which they serve the sick and elderly, and dirty or dangerous tasks. They are also suitable for some professional tasks such as reception-desk administration, assembly line workers. In some cases, they can use tools and operate equipment and perform tasks in human form, humanoid robots can perform any task a human being can, so long as they have the proper software. However, the cost of humanoid robots is immense.

They are also becoming popular as entertainers. For example, Ursula, a humanoid robot, plays music, dances and speaks at Universal Studios. Several Disney animatronics robots that look, move and sound like human beings. Although these robots have no cognition or physical autonomy, they are featured in an independent documentary, *Play*, which was released in 2010. Humanoid robots, especially those with artificial intelligence algorithms, could be used in dangerous and/or distant space exploration without having the need to turn back to Earth once the mission

| | STUDENT NAME | COMPANY NAME |
|--|------------------------------------|---------------------|
| | ADDAGIRI INDU MOUNIKA | ALLSEC TECHNOLOGIES |
| | ANNAVARAPU V B PRASANNA KUMAR | ALLSEC TECHNOLOGIES |
| | AVULA HARIKA | DATAPPOINT |
| | BOGGAVARAPU SRIKANTH | IDEALABS |
| | BOLLA NAVEEN | PATH FRONT |
| | BOPPUDI VINEETH | ALLSEC TECHNOLOGIES |
| | CHINTHANIPPULA LAVA KUMAR | EFFECTRONICS |
| | CHIRUMAMILLA RAVALIKA | DATAPPOINT |
| | DHENUVUKONDA M SAI RAJU | ALLSEC TECHNOLOGIES |
| | DOGIPARTHI SRAVANI | EFFECTRONICS |
| | EEMANI GANGA PARVATHI | ALLSEC TECHNOLOGIES |
| | GANDLA DEVIKANTH | ALLSEC TECHNOLOGIES |
| | GANGAVARAPU VENKATANAGAJYOTHI | DATAPPOINT |
| | GOPALAM MOUNIKA | DATAPPOINT |
| | GOTTIPATI SWAPNA | ALLSEC TECHNOLOGIES |
| | GRANDHI VENKATA RAMA NARASIMHA RAO | TECH MAHENDRA |
| | GUDIWADA AMANI | DATAPPOINT |
| | GUGGILAM MANI SARANYA | DATAPPOINT |

| | | |
|---------|-------------------------------|---------------------|
| W1A0452 | KOPPULA SRIVANI | IDEALABS |
| W1A0457 | MADALA USHA | TECH MAHENDRA |
| W1A0459 | MANKU GOPI | IDEALABS |
| W1A0460 | MANNAM TRIVENI | ALLSEC TECHNOLOGIES |
| W1A0462 | MARRI ARCHANA | GLENWOOD SYSTEMS |
| W1A0463 | MEDARAMETLA MANOJ KUMAR NAIDU | TECH MAHENDRA |
| W1A0466 | MUDRABOYINA VENKATESWARA RAO | TECH MAHENDRA |
| W1A0468 | MUNAGA PRIYANKA | TECH MAHENDRA |
| W1A0469 | MURIKIPUDI MAHESH | IDEALABS |
| W1A0473 | NAMALA SRI BALAJI | UTS |
| W1A0476 | PANUGANTI SAI PAVANI | EFFECTRONICS |
| W1A0483 | POLISSETTY TRIVENI | IDEALABS |
| W1A0484 | POSANI JAYABHARGAVI | GLENWOOD SSYSTEM |
| W1A0485 | POTLA SARITHA | GLENWOOD SYSTEMS |
| W1A0495 | SONTEM SINDHOORA | IDEALABS |
| W1A0498 | SURE SUDHAMUDU | TECH MAHENDRA |
| W1A0499 | TARIGOPULA HYMA TRIVENI | TECH MAHENDRA |
| W1A04A0 | THALLURI NAGA DIVYA | TECH MAHENDRA |

hindra
BUSINESS SERVICES



Allsec
Techno

abs™
SOLUTIONS

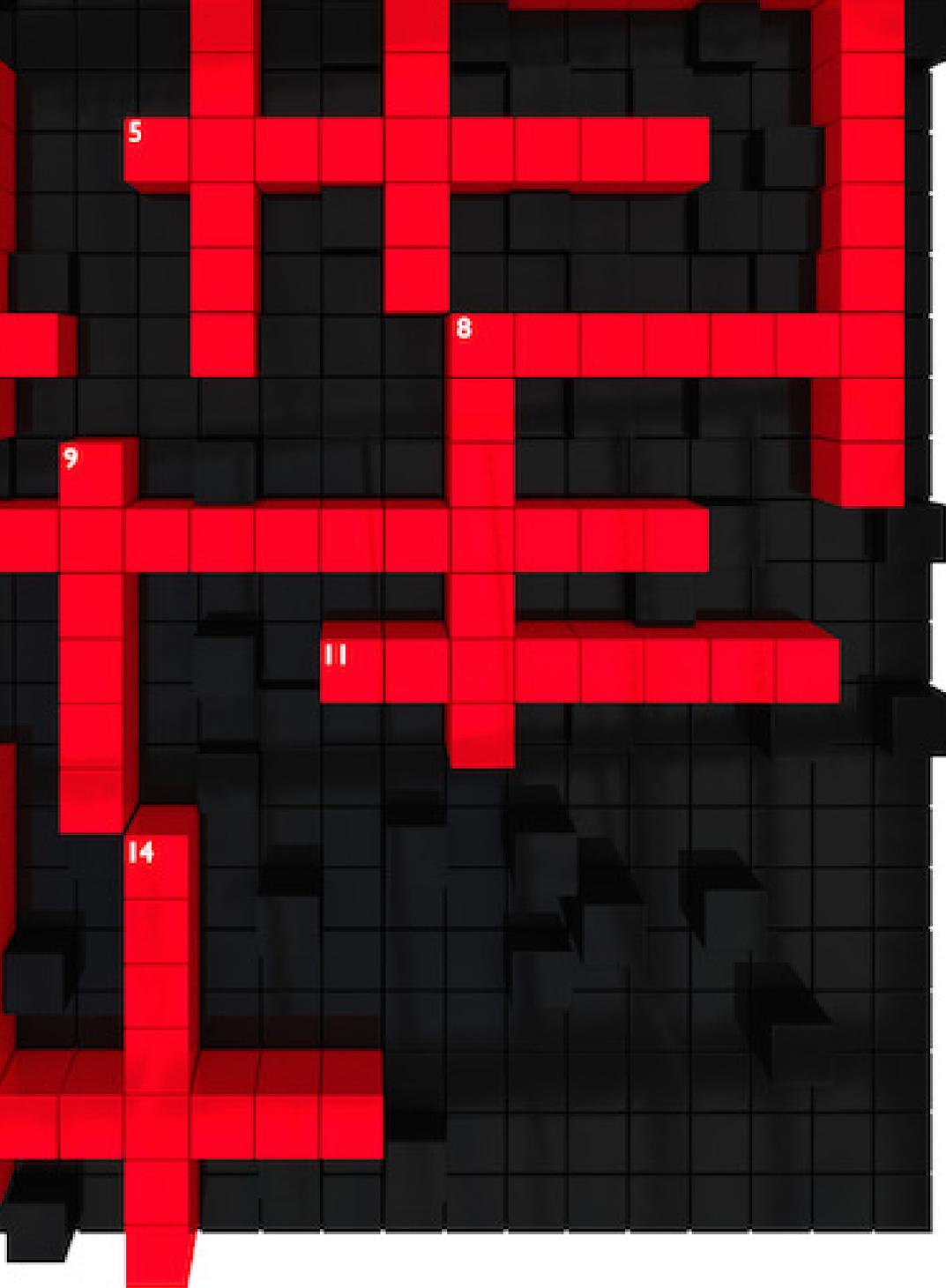


e@t@ronics®
To provide insight for enhancing wealth

Pal
Talent

Glenwood Systems

DATA
YOUR B



2. A diagram that shows the electrical components

5. Current is considered to be the movement of

6. A voltage source that converts chemical energy

8. A flow of electric charge

10. A characteristic of a secondary cell

11. A material that is composed of a mixture of

12. The term used to designate electrical

15. A short circuit will have a _____ resistance

16. The part of an atom that has no electrical charge

Down:

1. A voltmeter is used in _____ with a resistor

2. A device that opens or completes an electrical circuit

3. A material that opposes the movement of electrons

4. One coulomb passing a point in one second

7. A resistive component that is designed to be temperature sensitive

8. A unit of charge that contains 6.25×10^{18} electrons

9. An atom's atomic number is determined by the number of

_____.

13. A substance that is found only in its pure form

14. It is used to measure current.

