AVERA

DEPARTMENT
OF
ELECTRICAL AND ELECTRONICS

PULSE
NEWSLETTER

PULSE

FROM THE EDITORIAL

The written world has never ceased to withdraw its influence over the educated community. A written word is a record of an event, which will exist forever, long after the grandeur of that event has subsided. Presenting you PULSE– one such avatar of the written world, which eliminates the darkness of ignorance by spreading its rays of Knowledge?

"A successful team beats with one heart"

This year, 2017 the team has stepped into office with high hopes and ambitions. With an able guidance of Dr.K.Umamaheshwari, AP (SG), EEE and Mr. M.Balaji AP (SS), EEE and a strong leadership under Selvan K.Pradheep Kumar, final year, EEE, and an effective team, the past year was a very productive one. With a clear cut plan and an effective & workaholic team, the past year was a uphill ride for the department of EEE. The year was busy with Guest lectures, events and workshops occupying the calendar.

Dr. A. Senthil Kumar
Head of the Department, EEE.

Dr. K.Umamaheshwari, AP (SG), EEE
Faculty advisor, AVERA

Dr. M. Balaji, AP (SS), EEE
Faculty advisor, AVERA

VISION

Emerge as the world leader for the Electrical and Electronics Engineering Education and research for the application of knowledge to the society.

MISSION

- A stimulating learning environment with a technological orientation to maximize individual potential
- Continuous pursuit of quality and excellence.
- Appropriate know-how and up-to-date knowledge.
- Nurture creativity and ambit for research.

EVENTS   MARKETING EVENT

The AVERA association had conducted "Crazy Marketing Event" for second and third year students on 23rd December 2017(Saturday). The students were segregated into three batches. All the batch students were assembled in three class rooms. More than 100 students participated in the activity. The students were grouped into teams of 5 members. They were asked to select a product from the slot and each team was given 20 minutes for preparing a skit for marketing their product. After 20 minutes they were asked to perform their skit. The students actively took part in the event, which invoked their team work, adaptability, and creativity and communication skill. This event helped the students to develop their innovative thinking. At the end of the event, the students shared their feedback to the volunteers. The students of second and third year felt that the event was useful for them. The students shared their ideas to have an interactive session between second and third year students and to include technical and non-technical events in the session.

MOCK INTERVIEW

AVERA organized a "Mock Interview" on 10th February 2018(Saturday) between 1.45 pm and 5.00 pm at C207. The event was conducted for third year students. About 50 students took part in the event. The round 1 consisted 20 questions and lasted for about 45 minutes. The questions were based on digital electronics, circuit theory, and physics, fundamental of electronics and aptitude testing questions. Students who scored high points were selected for the next round. Twenty students were selected for the next round. In round 2, group discussion was conducted by Mr. M.Balaji and Mr.K.Manu and ten students were selected for next round. In round 3, mock interview was conducted by Dr.A.Senthil Kumar, Dr.M.Kaliyamoorthy and Dr.A.Sakthivel. This event helped in improving the student's soft skills, presence of mind and attitude. Further the feedback was received from the students to improve the functioning of our association.

PAPER PRESENTATION

AVERA,conducted a "Paper Presentation" 24th March 2018(Saturday) between 2.00 pm and 4.30 pm at A413. The students from the circuit stream have participated in the event. There were about 40 students from II and III years participating in the event. The topics of the abstract are as follows advanced wireless communication, Multi touch technology, Design of low noise amplifier for the frequency of 2.4GHz, Industrial Automation, Heart beat sensor using Aurdino, Mechanical Foot step power generation, Zigbee technology, etc. The judges for preceding the presentation were Dr.A.Senthil Kumar, HOD/EEE, Dr.V.K.Sudha from ECE, Mr.K.Faisal from E&I. The time duration for each team was 6 minutes. At the end of each presentation questions were asked to the students. This event helped in testing the participant's Ideas to enhance their presentation skills.

SKILL ENHANCEMENT PROGRAMME

AVERA conducted Mock Placement Drive and skill enhancement activities for second and third year students on 16.12.17 (Saturday). The students were split into two batches, one batch of students was gathered in electrical seminar hall and the other batch of students is assembled in class room. The Head of the Department, Dr. A. Senthil Kumar initiated the session with the introductory address on the purpose of conducting skill enhancement activities for the students. In electrical seminar hall, Mr. M. Balaji, Faculty Advisor of AVERA conducted an orientation session on "Carrier Opportunities and Skill Enhancement – An Insight" to 150 students. After the Presentation, a small mock press meet (Role Play) has been conducted for few volunteered students. Six students were provided with the role of famous personality. Questions have been asked to the students regarding those personalities, which made the session very enthusiastic. The students in the class room were engaged with other events organized by the members of AVERA. The events were tongue twisters, connections, craft work and hidden content. The students actively took part in the events, which invoked their team work, adaptability, creativity and communication skill. The students were also tested with their basic knowledge on electrical and electronics field, which made them to recall their past lessons.

WORKSHOP ON VERILOG HDL

AVERA has conducted a workshop titled, "Verilog Modeling" on 24th December 2018 (Saturday) for second year and third year students of EEE between 9.00 am and 5.00 pm. The faculty members having expertise in Verilog Modeling were identified as resource persons to facilitate the workshop. The workshop was attended by 20 participants across A, B and C sections of II year and A and B sections of III year. The introductory lecture for the workshop was given by Ms.K.Saranya. The workshop focused on the Verilog Modeling. Ms. K. Saranya AP / EEE department conducted the session. In the morning session, introduction about the Verilog Modeling was given and the basics were introduced to the students. In the afternoon session, programming on the Verilog was taught to students. The participant's feedback reflects that the workshop was very useful for them to improve their programming skills and it also improved their interest towards Verilog Modeling.
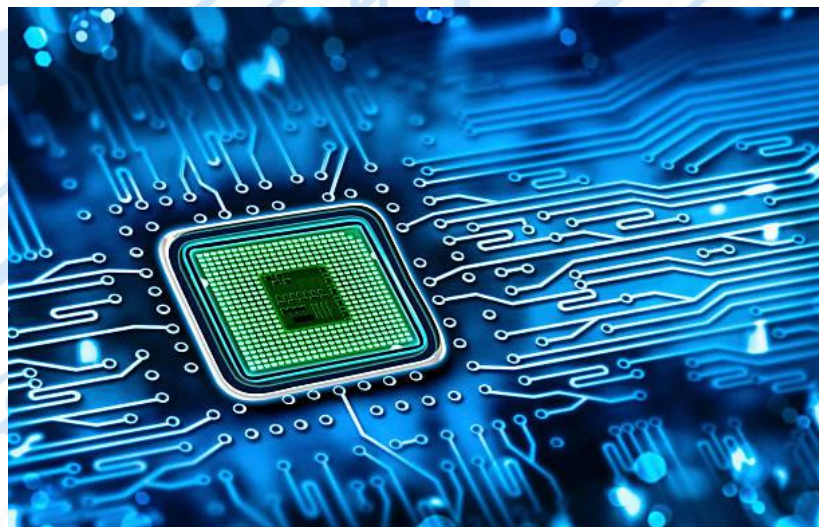
VARNAM 2KI8

AVERA conducted an event "Averatz" as a part of Varnam on 17th February 2018(Saturday) between 9.30 am and 12.30 pm at A413. The students from circuit stream have participated in the event. There were about 80 students from I, II and III years. The round 1 was technical quiz. There were 20 questions. The timing for the round 1 was about 45 minutes. The questions were based on digital electronics, circuit theory, physics and fundamental of electronics. Students who scored high points were selected for the next round. The round two was held at C207. In this round the participants were provided with the set of electrical components, bread board and connecting wires. The total students participated in this round was about 24. A team consisted of three students. The participants were asked to form different circuits from the given components. The participants were evaluated based on the number of circuits they built and on how innovative they were. The time duration of this round was one hour. The event helped in testing the participant's technical skills, practical skills, intelligence, presence of mind and attitude. It also created a healthy competition and gave enthusiasm to learn more on unexposed domains.

VALEDICTION

The valediction function of the AVERA was held on 6th April 2018 between 10.30 am and 12.30 pm at C.S.Hall. The guest lecture was given by Mr.Govindarajan, plant head, Suzlon Electricals limited, Coimbatore. The welcome address was given by Selvan.K.Pratheepkumar – President of AVERA. The annual report was presented by Selvi.S.M.Nachammai, Secretary AVERA. The chief guest was introduced by V.Janani, Treasurer of AVERA. The inaugural address was given by Mr.Govindarajan, Plant Head, Suzlon Electricals, Coimbatore. In the guest lecture he emphasized on leadership qualities and his knowledge about leadership. The function was felicitated by Dr.A.Senthil Kumar, Head of the Department, EEE. The students who cleared British English Council exam were given their certificates. The prizes for the events conducted by the association during the academic year 2017-2018 were distributed to the students. Finally, the vote of thanks was presided by Selvan.M.Deepak Ruban, Vice President, AVERA.

GPRS TECHNOLOGY

GSM (Global system for Mobile communication) is one of the most successful second generation cellular technologies. It is used for mobile communication, but the major drawback of this technology is the low data rates i.e. GSM was initially developed to transfer the packets at low rates up to 14.4kbit/s. GSM is based on circuit switched technology in which the user's running cost is based on how long the connection is made (i.e. Circuit is closed) regardless of the amount of data sent.

① GPRS attached
② Dynamic IP address alloted
③ Transmitted/Received Data

On the other end, GPRS (General Packet Radio Service) is an upgraded version of GSM with the feature of high speed data rates up to minimum of 85.6 k bit/sec. It enables the users to connect to the Internet so that they can easily browse websites, can interact with multimedia sites, can take part in video conferences and similar applications using mobile devices as well as computers. GPRS is based on packet switching technology in which user's running cost is based on the amount of data sent (no. of packets) regardless of connection time. It allows the network to transmit IP packages

to external networks. This technology became the intermediary between second-generation GSM cellular technology and 3G W-CDMA/UMTS system. This service is compatible with 2G and 3G networks.

GPRS is based on IP communication and the connected unit must provide an IP address before a connection can be established. For this the mobile phone or laptop must be connected to the GPRS network. A dynamic IP should be assigned to the mobile device and only after that the exchange of data over GPRS takes

place.

GPRS technology is playing a vital role in the field of cellular network communication. It has a number of advantages for users and network operators over the GSM system as follow -

• Speed - One of the great advantages of GPRS technology is that it offers a much higher data rate as compared to GSM system.

• Packet switched operation - Unlike GSM which is based on circuit switched techniques, GPRS technology uses packet switching in line with the Internet.

• "Always On" connectivity - Another advantage of GPRS is that it offers an "Always On" capability. As GPRS is based on packet switched technique, the user pays charges for the amount of data carried by him.

• Instant messaging and presence - Due to greater data speed of GPRS, the messaging between two devices is done extremely fast in GPRS. If SMS is sent over GPRS, the SMS transmission speed of nearly 30 SMS per minute can be achieved.

SIM800 Module -
The IOT devices can be connected to a GSM GPRS network by interfacing them with a GSM GPRS modem. One of the popular GSM GPRS modem is SIM800 module that has full flexibility of GSM/GPRS features. It supports Quad-band frequency of 850/900/1800/1900MHz. It can transmit voice, SMS and data information with low power consumption. It provides serial UART communication over AT commands with computer or microcontroller.


M.PRIYADHARSHINI
(SECOND EEE)

SKYTRAN- A PERSONAL RAPID TRANSIT

Recent projects which involve revolutionizing the public transport sector in the world like the Hyperlooop, driverless automobiles, passenger carrying drones, etc. Among all the methods of transport sky Tran researched and developed by NASA and Israel Aerospace Industries (IAI). It's so close off into being introduced to the public that the first working demonstration model is scheduled to be constructed by the end of 2016 in Tel Aviv, Israel.

The capsules will use the maglev (magnetic levitation) technology to eliminate the huge friction loss factor involved with high velocities and therefore solving it by eliminating any form of surface contact. Along with the reduced friction losses, the generation of a magnetic and electric field can be done through the means of green electricity without the requirement of any fuel source to run it eliminating the primary concern bothering the planet in this time, pollution.
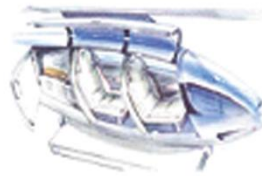
The magnetic levitation uses the principle of magnetic attraction or repulsion and therefore defying gravity by making it float on air. A repulsive magnetic lift is caused when repelling magnetic fields are placed to avoid surface contact between the couplings by pushing it away from itself. Whereas an attractive lift acts by the guide rail lifting the car towards itself and located on top of the car.

The construction of the skyTran is such that it doesn't hinder any other independent modes of transport since they can be supported by poles in the pedestrian pavements. It does not cross in with any roads or tracks or any other lines of capsules. The main line will contain strategic exits which will take the passengers to the

location where they want to go without having to make any stops also because it is a minimalistic personalized transport capsule.

The routing system of the transit cars is so efficient that it reduces stoppage time to almost null, for example, if a passenger in front of your capsule takes a long time to offload, your capsule can skip to a parallel track. The Tel Aviv demonstration strip only consists of 4 stations but the routing system gets more efficient as the routing gets more complex.

It is really a flexible technology with pretty much no boundaries stopping it. It can also make a locale look neater and more organized (and obviously futuristic) by allowing the power lines and telecommunication cables to run through the rails. The pollution aspect is also a crucial point which the company takes into consideration by utilizing the maglev propulsion. In this critical junction of the human race, we have already threatened ourselves by exposing the planet's ecosystem to its natural limit of pollution. So, these days the more important technical feature which needs to be paid attention

to is its ability to run on green energy rather than the power which sky Tran succeeds in achieving. Since it completely runs on green energy, it virtually leaves no trace of pollutants.

R SHRUTHI
(SECOND EEE)

3D PRINTING

3D Printing can be a household thing in near future. No doubt, you might have heard about 3D printing more often nowadays. The technology is deemed to be a catalyst for another industrial revolution. The days when 3D printing will be used for mass productions in manufacturing sector may not be far. Used for prototyping application. This is an industrial process of making three dimensional solid objects from a digital file. A product designer or engineer creates a 3D Model of a product in CAD software and 3D printers print them layer by layer thereby creating a real three-dimensional object.

3D Printing is a digital process. The 3D Models of any object in the form of STL (Stereo lithography) or OBJ (object) files are digital files created on CAD software.

The printing is done layer by layer bottom to up on a base where each layer in the form of a digital code is sliced from the STL or OBJ file. Here, each layer is actually a deposition of fabricating material on the base in a digitally defined and computer-controlled manner. The digital code of STL or OBJ file determines where the fabricating material is to be deposited within a layer and in what quantity and

proportion. One can imagine each layer as a 2D plane where the adhesive material used for making the object is deposited in a specific quantity at specific points of the two-dimensional plane and gets solidified on instant cooling just like pixels are aggregated to form a 2D image on a digital display.

The complete 3D object is created by printing several layers on the top of one after the other. The printing is carried out by using additive materials so each layer cements with the successive layer. Therefore, a layer by layer deposition of additive material in a digitally controlled manner creates a real 3D object.

Since the object is created from a digital file, the shape, size, and design of the object can be controlled offering immense scalability. The prototypes or objects created from current 3D printers have mechanical defects. The printing process is not error-free. The accuracy of printing depends upon the accuracy of STL or OBJ files attend the software settings of the 3D printer. Moreover, the current 3D printers do have limited control over the operating temperature of the environment where the material is deposited and get solidified on the base. Obviously, this is another hurdle in deploying 3D printers to manufacturing products. Currently, only plastics are used for 3D printing because it is only possible to mound plastics and similar synthetic materials with limited control over the temperature of the molding environment.
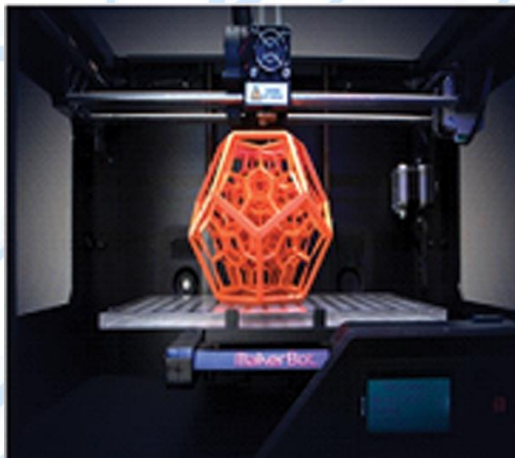
AKSHAY S SHAJI
(SECOND EEE)

WITRICITY-FUTURE OF ELECTRICITY

One spends their lifetime plugging things in. Be it either mobiles or laptop chargers or your television sets. But that's all that's about to change!

There is about trillions of money spent in setting up power stations and wires carrying electricity from where it is generated to our homes and offices. But then there is a negative aspect to all this. Wires and batteries are awful.

Imagine what if there was a technology through which we could built something that will never require us to plug our computers and phones into plug points ever again. That's where wireless electricity (WiTricity) is used.

The earliest vision of wireless electricity was thought by Nikola tesla. As great as an engineer and inventor he was, he dedicated his whole life to work with electricity. But his vision of a world running on wireless electricity was made possible for the first time by a MIT professor Marin Soljačić.

He with a group of MIT physicists was able to power a light bulb of about 60 watt from a distance of two meters wirelessly. It was around 50% efficient which is still a thousand times more efficient than what a battery would be to perform was called the resonant energy transfer.it was called the resonant energy transfer. Same task. The concept behind it was called the resonant energy transfer.

In this experiment, one of the coils was connected to an AC power supply having a resonant source. The other coil having a resonant capture device was connected to a 60W

In this experiment, one of the coils was connected to an AC power supply having a resonant source. The other coil having a resonant capture device was connected

to a 60W light bulb. They were suspended in mid-air by a nylon thread at a distance ranging from a few centimeters to 2.5 meters. The power supply was able to light the bulb wirelessly.

Inside a transformer there are two coils of wires. They are very close to each other and transfer energy from one coil to another magnetically and wirelessly.

This phenomenon occurs over a very short distance. What dr. Soljačić did was separate the coils in the transformer to a greater distance than the size of those transformers and make it work somehow.

In simple words what's actually happening is you convert electricity into magnetic field and take that magnetic field and turn it back into electricity to use it but over some distance.

This non-radioactive power transfer works on magnetic fields and is 100% safe in nature. It's almost the same as the earth's magnetic field. Plus imagine how convenient it would actually be in day to day life for charging everyday electronics. It is also a very safe way of power transfer.

Wireless electricity is still a very new concept and in its development phase but it holds a wide range of applications where it can be used. The applications where it has been tested efficiently ranges from household appliances to industrial applications. We have been able to charge cell phones wirelessly and have been able to turn on our television sets wirelessly.

R SHRUTHI
(SECOND EEE)

Dyson's digital motor

Dyson's 'digital' motor is what's known as a switched reluctance motor. Instead of powering the rotor, a switched reluctance motor has a magnetic core — so as power is switched through the coils of the stator the magnetic core is dragged around to line up with the magnetic field they generate.

With more coils than magnetic poles on the rotor it's possible to set up a switching pattern in the coils that pulls the rotor around. That means using sensors and complex switching circuitry, as controlling the magnetic fields in the motor is the key to delivering an efficient motor. Switched reluctance motors like this can be very efficient, and Dyson claim that their motor is 84 percent efficient (compared to 40 percent for a

Traditional electric motor). There's a lot to be said for a compact, high power, motor like this not just for vacuum cleaners and hand driers. It also meant using a lot of design tools much of it using Dyson's own simulation software.

The rotor in Dyson's motor is relatively simple — with just two poles. That simplifies the control problem, and reduces the number of windings needed to create the pattern of field pulses used to pull the rotor round, here at over 100,000 rpm. Normally the magnets in a switched reluctance motor are quite weak. That's not the case with Dyson's motor, where we've ended up using an early model's rotor as a fridge magnet. More powerful magnets means a more complex control problem, but also lets Dyson make the motors much smaller and lighter. That's where the digital comes in, as solving that problem has meant using an off-

the-shelf microcontroller and writing software, rather than developing specific control circuitry. Using a simple Hall Effect magnetic sensor to determine where the rotor is, the control software makes more than 3,000 adjustments to the magnetic field pattern every second.

U N THENMOZHI
(SECOND EEE)

GOOGLE DRIVERLESS CAR

The Google driverless car is a project by Google which involves the development of technology to make a car self-dependent. The software that Google use to automate cars is known as the "Google Chauffeur". They do not produce a separate car but install the required equipment onto a regular car. The project is currently being led by Google engineer Sebastian Turin (who is also the director of the Stanford Artificial Intelligence Laboratory and co-inventor of the Google street view) under the aegis of Google. The Toyota Prius and Audi TT Quattro fitted with the Google driverless car.

The tests were conducted with expert drivers in the driver seat and Google's engineers in the passenger seat the United States of America. The speed limits are stored in the brain of the control systems and the car comes with a manual override which passes on the control to a driver in case of any malfunction. By August 2012, Google announced that it had completed 500,000 km of road testing.

Here we observe that the primary sense is sight or any way by which we are aware of the observable surrounding around us.

Here we observe that the primary sense is sight or any way by which we are aware of the observable surroundings around us.

Apply this principle to design an electronic control system and the result is an autonomous car. Although it sounds simple, the software and hardware interaction on a big system like a car is in actuality quite sophisticated. The accuracy and dynamic range required in such a system is high. It was accomplished in grand challenge for the robotic vehicle "Stanley

The primary device that monitors the

environment is the "Laser Range Finder" (A Velodyne 64 beam LIDAR - for Light Detection and Ranging). The laser generates a detailed 3D image of what it observes around it. It measures the 3D environment and then compares it with high resolution maps of the real world. Laser range finders are similar to the ones found in the laser scanners but of a larger range and higher accuracy. car is also equipped with four radars which are meant to keep watch far enough (beyond the range of laser) so that the fast oncoming traffic can be detected.

A camera is positioned on the rear view mirror facing forward. This is meant to sense the traffic signals. A GPS (Global Positioning system) locates the latitude and longitude position of the car which is used to place it on a satellite map. The GPS is mainly used to set a predetermined course by the user.

The data of the course directs the vehicle to follow a path required to reach the prescribed location.

An inertial measurement unit, measures the inertia force exerted on the vehicle. The wheels of the vehicle contain odometers which measure the speed of rotation of the wheels (RPM). load on the engine (i.e, the Brake Horse Power BHP). These sensors work collectively to monitor the speed and movements of the vehicle.
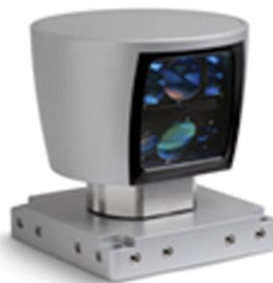
M. PRIYADHARSHINI
(SECOND EEE)

5G TECHNOLOGY

If you take a stroll outside today, you'll see a lot of people with mobile phones, tablets in their hands are making calls, using the internet to catch up on the news, watch videos, or interacting with others via Facebook, twitter including you. In doing so, we all are using a mobile data network. Many of these applications particularly video consume a lot of bandwidth, so telecommunications companies across the world always try to talk about upgrading to the latest generation of mobile data to help speed things up .As we approach 2020 it is likely that there will be more than 50 billion connected devices worldwide and The Internet of Things will no longer be something we think about but will be all around us. Everything from home appliances to our cars will be connected to the network and 5G is being designed and built with this in mind.5G is not just a mobile technology, its unique access to high & low data rate services. The technology is still a long way from becoming a reality, but it has the potential to completely change the way we interact with wireless devices. The advanced billing interfaces of 5G technology makes it more attractive and effective.5G technology will be also providing subscriber supervision tools for fast action 5G technology will be providing large broadcasting of data in Gigabit which supporting almost 65,000 connections.5G technology offer transporter class gateway with unparalleled consistency .The traffic statistics by 5G technology makes it more accurate .Through remote management offered by 5G technology a user can get better and fast solution. The

remote diagnostics is also a great feature of 5G technology. The 5G technology will be providing up to 25 Mbps connectivity speed .It will be globally accessible .It will be having 6th sense technology. The 5G technology also support virtual private network .Typical parameters for a 5G standard may include network capacity(10 000 times current network),peak data rate(1000 Gbps),cell edge data rate(100 Mbps),latency(<1ms). Millimeter-Wave technologies - Using frequencies much higher in the frequency spectrum opens up more spectrum and also provides the possibility of having much wide channel bandwidth possibly 1 - 2 GHz. However this poses new challenges for handset development where maximum frequencies of around 2 GHz and bandwidths of 10 - 20 MHz are currently in use. For 5G, frequencies of above 50GHz are being considered and this will present some real challenges in terms of the circuit design, the technology, and also the way the system is used as these frequencies do not travel as far and are absorbed almost completely by obstacles.

Dense networks - Reducing the size of cells provides a much more overall effective use of the available spectrum.

SHANMUGAPRIYA N
(FIRST EEE)

TRICKY PUZZLES

Questions:

1.   A poor woman and a rich woman are talking about music.

The poor woman says she has studied music and can name a song with any name in it.

The rich woman says "OK, if you can find a song with my son's name in it, I will give you a thousand dollars. His name is Demarcus-Jabari."

The poor woman gives her answer and is instantly $1,000 richer.

What was her answer?

2.   A criminal gets to pick his punishment by choosing among three rooms.

The first is full of burning fires, the second is full of assassins with loaded guns, and the third is full of lions that haven't eaten in 3 years. Which room is the safest choice?

3.   1 is 3.

3 is 5.

5 is 4.

4 is 4.

What is 7?

4.   The following equation is wrong: 101 - 102 = 1

Move one numeral to make it correct.

Move one line to make it correct. (Caution: Tricks!)

Answers

1. Happy Birthday

2. The Third Room.

The Lions will be dead by now

3. 7 is 5.

Because "seven" has 5 letters.

4. Move the numeral 2 half a line up to achieve 101-10² = 1

Move one of the lines that makes the "=" over to the "-" to make: 101 = 102 - 1

BRAIN TEASERS

Questions:

1. Give the place value of 5 in the number 254,879.
2. What word in the English language uses all five vowels plus Y in alphabetical order and uses each one only once?
3. What has a spine but no bones?
4. When I'm young I'm tall
When I'm old I'm short
When I'm alive I glow
Because of your breath I die
What am I?
5. A man walked all day long but only moved 2 feet. How is this possible?

Answers:

1.50000

2. Facetiously, which means not seriously?

3. A Book

4. A Candle

5. He only has two feet with which to move!

AVERA TEAM 2K17-2K18

S.NO	POSTING	NAME OF THE STUDENT	YEAR
1.	**PRESIDENT**	PRATHEEP KUMAR.K	IV Yr
2.	**SECRETARY**	NACHAMMAI.S.M	
3.	**VICE PRESIDENT**	DEEPAK RUBAN.M	III Yr
4.	**JOINT SECRETARY**	DHIVYA.T	
		RAM KUMAR.S	
6.	**TREASURER**	JANANI.V	IV Yr
7.	**JOINT TREASURER**	KANNAMMAI.S.M	III Yr
8.	**OFFICE BEARERS**	1.KAMALAHASAN.L 2.MURALIDARAN	IV Yr
		1.PRADEEPA.R 2.JEEVITHA.A 3.HARI PRASAD.S 4.GAYATHRI.V	III Yr
		1.HARSHINI PREETHI.S 2.YOGESHWARAN.P 3.NAVEEN KUMAR.S	II Yr
9.	**NEWSLETTER EDITORIAL MEMBERS**	1.ABINESSH.R 2.SEEBHASRI.N	IV Yr
		1.ANISH.S 2.BHARATH.C 3.KIRUBA.P 4.POOJA.R	III Yr
		1.AKSHAY S.SHAJI 2.LOGANATHA SANJEEV.C	II Yr

AVERA TEAM 2K18-2K19

S.NO	POSTING	NAME OF THE STUDENT	YEAR
1.	**PRESIDENT**	K. PRASANNAH EZHILAN	IV Yr
2.	**SECRETARY**	KANNAMMAI.S.M	
3.	**VICE PRESIDENT**	V. LOGANATHASANJEEV	III Yr
4.	**JOINT SECRETARY**	VAISHANAVI. S	
		NAVEEN KUMAR. S	
6.	**TREASURER**	NIVETHA. R	IV Yr
7.	**JOINT TREASURER**	AGILA. R	III Yr
8.	**OFFICE BEARERS**	S. RAM KUMAR V. POOVITHA	IV Yr
		AKSHAY S SHAJI HARSHINI PREETHI S P YOGSHWARAN G KOWSALYA DEVI S SHARMILA M RAVIRAHUL	III Yr
		N SHANMUGAPRIYA K. ARAVINTH A CHANDRU	II Yr
9.	**NEWSLETTER EDITORIAL MEMBERS**	S. HARIPRASAD	IV Yr
		M. PRIYADHARSHINI U. N. THENMOZHI R SHRUTHI R. HARSHAVARTHINI	III Yr
		K. S. ABINAYA	II Yr

No. of students participated in Inter-collegiate events (Symposium, Workshop, Training, Conference)

Sl.No	Roll No	Name of the student	Event Title	Event Venue	Date of Participation
1	15BEE056	B.Kamali	Autonomous vehicle - ARM student design Challenge	ARM University, ACS 2017-2018 at IIT Bangalore	24.03.2018 – 25.03.2018
2	15BEE076	M.Aravind kumar	Autonomous vehicle - ARM student design Challenge	ARM University, ACS 2017-2018 at IIT Bangalore	24.03.2018 – 25.03.2018
3	15BEE080	V.Tamilarasu	Autonomous vehicle - ARM student design Challenge	ARM University, ACS 2017-2018 at IIT Bangalore	24.03.2018 – 25.03.2018
4	15BEE024	T.Sharan	Autonomous vehicle - ARM student design Challenge	ARM University, ACS 2017-2018 at IIT Bangalore	24.03.2018 – 25.03.2018
5	15BEE084	S.Kalpana	Autonomous vehicle - ARM student design Challenge	ARM University, ACS 2017-2018 at IIT Bangalore	24.03.2018 – 25.03.2018
6	15BEE042	P.Kiruba	Autonomous vehicle - ARM student design Challenge	ARM University, ACS 2017-2018 at IIT Bangalore	24.03.2018 – 25.03.2018
7	15BEE078	R.Pooja	Autonomous vehicle - ARM student design Challenge	ARM University, ACS 2017-2018 at IIT Bangalore	24.03.2018 – 25.03.2018
8	15BEE064	N.K.Gokul Panneer	Autonomous vehicle - ARM student design Challenge	ARM University, ACS 2017-2018 at IIT Bangalore	24.03.2018 – 25.03.2018
9	16BEE006	G.Kapil kumar	Hands on training on Industrial Embedded programming using PIC microcontroller	SunShiv electronic solutions, Coimbatore	-

10	15BEE072	Dhivya.T	Technical Quiz	SVS college of Engineering, Coimbatore	09.3.2018
11	15BEE072	Dhivya.T	Circuit Debugging	SVS college of Engineering, Coimbatore	09.3.2018
12	15BEE054	Gayathri.V	Technical Quiz	SVS college of Engineering, Coimbatore	09.3.2018
13	15BEE054	Gayathri.V	Circuit Debugging	SVS college of Engineering, Coimbatore	09.3.2018
14	16BEE061	S.Naveen Kumar	BOSCH workshop on mobility, E-mobility and IoT	Kumaraguru College of Technology, Coimbatore	09.02.2018
15	16BEE024	R.Kavin Kumar	SPLIENT	Kumaraguru College of Technology, Coimbatore	09.02.2018 – 11.02.2018
16	16BEE024	R.Kavin Kumar	K-QUIZ	Kumaraguru College of Technology, Coimbatore	09.02.2018 – 11.02.2018

No. Of students participated in Intra-collegiate events (Symposium, Workshop, Training, Conference)

Sl.No	Roll No	Name of the student	Event Title	Event Venue	Date of Participation
1	15BEE077	Anish.S	Value added course on FPGA implementation of Processing Algorithms for Digital Images.	MCET	02.02.2018 – 03.02.2018
2	15BEE097	Pukazhvanan P	Android application development for energy management	IAEMP, MCET	24.03.2018

3	15BEE027	Vasunthra.P	Android application development for energy management	IAEMP, MCET	24.03.2018
4	15BEE097	Pukazhvanan P	Custom IC design, CMOS process integration, IC fabrication, Packaging and testing.	MCET	23.02.2018
5	15BEE067	K.Narmadha	Tech & Non-tech events	MCET, Pollachi	09.03.2018
6	15BEE073	S.K.Gayathri	Custom IC design, CMOS process integration, IC fabrication, Packaging and testing.	MCET	23.02.2018
7	15BEE073	S.K..Gayathri	Campus Innovators	MCET, Pollachi	16.2.2018 – 17.02.2018
8	15BEE071	G.Nivetha	Tech & Non-tech events	MCET, Pollachi	09.03.2018
9	15BEE089	B.Pradeep	Tech & Non-tech events	MCET, Pollachi	10.03.2018
10	15BEE077	Anish.S	Tech & Non-tech events	MCET, Pollachi	10.03.2018
11	16BEE024	R.Kavin Kumar	Tech & Non-tech events	MCET, Pollachi	09.03.2018
12	15BEE027	P.Vasunthra	Simulation of IEEE Transaction papers on Industrial Electronics	MCET, Pollachi	24.01.2018 – 25.01.2018
13	16BEE319	Narendranath V	Android application development for energy management	IAEMP, MCET	24.03.2018
14	16BEE319	Narendranath V	Workshop on Design of PCB for power converter	MCET	10.03.2018
15	15BEE039	K.Sowndharya	Workshop on Design of PCB for power converter	MCET	10.03.2018
16	15BEE105	S.GuruPrasanth	Workshop on Design of PCB for power converter	MCET	10.03.2018

17	15BEE027	P.Vasunthra	Workshop on Design of PCB for power converter	MCET	10.03.2018
18	15BEE077	S.Anish	Workshop on Hardware modelling using Verilog	MCET	24.03.2018
19	16BEE061	S.Naveen Kumar	Workshop on Industrial Automation using PLC	MCET	09.03.2018 – 10.03.2018
20	15BEE027	P.Vasunthra	MARKETING	AVERA, MCET	20.01.2018

No. of students presented papers

S. No	Roll No	Name of the Student	Paper Title	Venue
1	15BEE047	K.Mahalingam	Energy Management	Hindusthan College of Engineering and technology, Coimbatore
2	15BEE072	Dhivya.T		SVS college of Engineering, Coimbatore
3	15BEE054	Gayathri. V		SVS college of Engineering, Coimbatore
4	14BEE055	Yoghasree.S	Design and implementation of DC – DC resonant boost converter using PI controller	International journal for scientific research and development
5	15BEE303	Nevethitha	Design and implementation of DC – DC resonant boost converter using PI controller	International journal for scientific research and development
6	15BEE029	Devadharshini. V	Evolutionary programming based evaluation of total transfer capability by establishing bilateral contracts TCPST Devices	Sri Krishna College of Technology, Coimbaotre
7	15BEE034	N.Subharnashri		Government College of Engineering, Salem

No. of awards/medals won by students in inter-college and intra-college events

S no	Roll no	Name of the student	Paper title	venue	Date of presentation	Award type and details
1	15BEE033	K.Jeeveth	Autonomous vehicle - ARM student design Challenge	ARM University, ACS 2017-2018 at IIT Bangalore	24.03.2018 – 25.03.2018	I
2	15BEE009	C.Barath	Autonomous vehicle - ARM student design Challenge	ARM University, ACS 2017-2018 at IIT Bangalore	24.03.2018 – 25.03.2018	I
3	15BEE007	P.Priyanka	Autonomous vehicle - ARM student design Challenge	ARM University, ACS 2017-2018 at IIT Bangalore	24.03.2018 – 25.03.2018	I
4	15BEE087	J.Jayani	Autonomous vehicle - ARM student design Challenge	ARM University, ACS 2017-2018 at IIT Bangalore	24.03.2018 – 25.03.2018	I
5	15BEE047	K.Mahalingam	Technical Quiz	Hindusthan College of Engineering and technology ,Coimbatore	24.02.2018	I
6	15BEE047	K.Mahalingam	Campus Innovators	MCET, Pollachi	16.2.2018 – 17.02.2018	I
7	15BEE047	K.Mahalingam	Product Marketing	MCET, Pollachi	16.2.2018 – 17.02.2018	I

8	15BEE047	K.Mahalingam	Cup 'O' Code	Kumaguru College of Technology, Coimbatore	05.2.2018 – 10.02.2018	I
9	17BEE074	Aravinth.K	Script Narrating	MCET, Pollachi	16.2.2018 – 17.02.2018	I
10	16MAE009	Brindha T	VLSI implementation of high speed median with low power switching application	Bannari Amman Institute of Technology, Sathy	01.03.2018 – 03.03.2018	Best paper award
11	15BEE049	S.Kovarthanan	Labview contest	Hindusthan College of Engineering and technology ,Coimbatore	24.02.2018	II
12	15BEE049	S.Kovarthanan	Cup 'O' Code	Kumaguru College of Technology,Coimbatore	05.2.2018 – 10.02.2018	I
13	15BEE073	S.K.Gayathri	Techgig.com	TBSL	Jan-18	Rank : 41487
14	15BEE073	S.K.Gayathri		AVERA, MCET	24.03.2018	III
15	15BEE073	S.K.Gayathri	ENCYCLO	AVERA, MCET	09.03.2018	II
16	15BEE089	B.Pradeep		AVERA, MCET	24.03.2018	III

Vision of the institute

We develop a globally competitive workforce and entrepreneurs.

Mission of the institute:

Dr.Mahalingam College of Engineering and Technology, Pollachi endeavours to impart high quality, competency based technical education in engineering and technology to the younger generation with the required skills and abilities to face the challenging needs of the industry around the globe. This institution is also striving hard to attain a unique status in the international level by means of infrastructure, start-of-the-art computer facilities and techniques.

Programme Educational Objectives

PEO1. Actively apply technical and professional skills in engineering practices to face industrial challenges around the globe.

PEO2. Own their professional and personal development by continuous learning and apply to create new knowledge.

PEO3. Conduct themselves in a responsible, professional and ethical manner supporting sustainable economic development, which enhances the quality of life

Programme Outcomes

PO1	:	Apply the knowledge of Mathematics, Science and Engineering to solve problems in the field of Electrical and Electronics Engineering
PO2	:	Identify, formulate/model, analyze and solve complex problems in the field of Electrical and Electronics Engineering
PO3	:	Design an Electrical/Electronic System/Component, or Process to meet specific purpose with due consideration for economic, environmental, social, political, ethical, health and safety issues
PO4	:	Design and conduct experiment, analyze and interpret data to provide valid conclusions in the field of Electrical and Electronics Engineering
PO5	:	Apply appropriate techniques and modern tools for design and analysis of Electrical/Electronic systems with specified constraints
PO6	:	Apply contextual knowledge to provide engineering solutions with societal, professional & environmental responsibilities
PO7	:	Provide sustainable solutions within societal and environmental contexts for problems related to Electrical and Electronics Engineering
PO8	:	Comply with code of conduct and professional ethics in engineering practices
PO9	:	Work effectively as an individual or as a member/leader in multi-disciplinary team to find solutions for engineering problems
PO10	:	Communicate effectively to engineering community and society with proper aids and documents
PO11	:	Demonstrate knowledge and understanding of the engineering and management principles to manage projects in multidisciplinary environment
PO12	:	Recognize the need for, and have the ability to engage in independent and lifelong learning

PULSE

SINCERE THANKS TO

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U N THENMOZHI (16BEE085)

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THANK YOU…!