

PRIYADARSHINI ENGINEERING COLLEGE

VANIYAMBADI – 635751

DEPARTMENT

OF

ELECTRICAL AND ELECTRONICS ENGINEERING



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**ABOUT THE INSTITUTE**

*Priyadarshini Engineering College, the flagship of Jai Barath Charitable Trust, was established in 1995 at Vaniyambadi in Vellore District of Tamil Nadu. The college has been approved by All India Council for Technical Education, New Delhi & affiliated to Anna University, Chennai. Priyadarshini Engineering College situated in the rural area of Vaniyambadi, Vellore District is committed to the vision of developing itself into a multi-campus, Inter-disciplinary Institution of Excellence through symbiotic efforts and innovative practices of management and faculty to provide the student with an ambient academic environment, ideal for the pursuit of knowledge*

**VISION OF THE INSTITUTE**

*To inculcate in the young rural minds the aptitude to compete with the quality technocrats.*

**MISSION OF THE INSTITUTE**

- *To instill technical skills to compete in the sustainable world*
- *To impart holistic value based technical education*
- *To intensify research and development (r & d) activities in technological development*
- *To imbibe core values of love for motherland*

**MOTTO**

**Perseverance, Endurance,  
Commitment**

**“கற்றலும், கற்றவைகேட்டலும், கேட்டதன்கண்நிற்றலும்**

## HOD MESSAGE

*I am tempted to quote swami Vivekananda “for no look back, look forward infinite enthusiasm infinite during and daring and infinite patience, then alone can great deed be achieved. “Nothing great was ever achieved without enthuse-iasm and there is no substitute for hard work.*

*Globalization has created both interrelated and interlinked world generating opportunities and alos throwing up challenges. The world awaits you to know what steps you will choose. This is the time to discover your life’s destiny, so be adventurous, be spontaneous and dare to be different in the world*

### **VISION OF THE DEPARTMENT**

*To produce eminent electrical engineer specifically from the rural background.*

### **MISSION OF THE DEPARTMENT**

- *Infuse moral ethics and good virtues to the students*
- *Providing good technical knowledge for innovative research and development*
- *Making them excellent in extracurricular activities*

### **Programme Educational Objectives (PEOs)**

#### **PEO 1: Core Competence**

*Graduates excel in analyzing, designing, simulating and testing of all electrical and electronics systems.*

#### **PEO2: Societal Requirements**

*Graduates are successful in giving solutions for real time problems to cater to the industrial and societal requirements.*

#### **PEO 3: Lifelong Learning**

*Graduates can adapt to lifelong learning to enhance their technical skills.*

#### **PEO 4: Leadership Qualities**

*Graduates exhibit their leadership qualities in a multidisciplinary field.*

FLORAL



L.KOKILA (SECOND YEAR)

S.KOKILA (SECOND YEAR)



## KAVITHAIKAL

KaruvaraiNaatkalNagaranthu  
Kondu Sentrída

OvvorulravumVayietrilKaivaithuVi  
zhiMoodi

MugamPaarpalKaruvaraiPilanthu

UyierilUyieraiKaraiyumNeram

YasithaSumaigalaiYosikamalTha  
nnudalai

UdaiyaiPotrumAnbinParisangalA  
mma

MegameUnnai

YaruEna

Seithargallpadi

AzhuginrayeAanal

Ne Azhuthal

MattumeNaangal

SirikaMudiyum

B.KOWSALYA (FINAL YEAR)

MarakilaiAsaivilManikalinOsaiyil

OliyilParavaiyarPaatilAlaigalin

AthirvilMaaruvedamPottapadiNee  
ye

EngumNirainthullailsaiye

V.SUBHALAKSHMI (SECOND YEAR)

## Ambedkar Quotes

**“Cultivation of mind should be the ultimate aim of human existence.”**

**“I like the religion that teaches liberty, equality and fraternity.”**

“Life should be great rather than long”

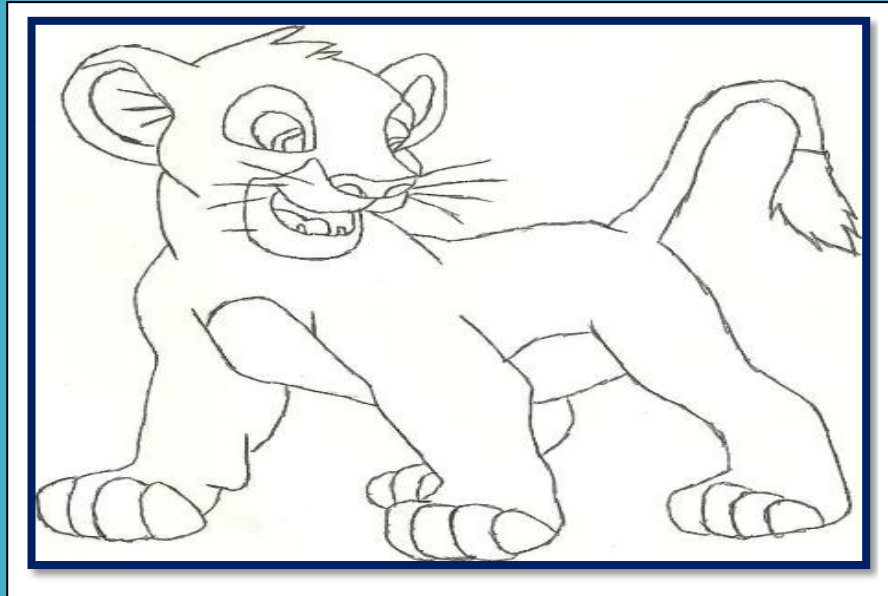
“Men are mortal. So are ideas. An idea needs propagation as much as a plant needs watering. Otherwise both will wither and die.”

“Religion must mainly be a matter of principles only. It cannot be a matter of rules. The moment it degenerates into rules, it ceases to be a religion, as it kills responsibility which is an essence of the true religious act.”

**”The Duty must be performed,let the Efforts be successful or not,let the work be Appreciated or not. When a man’s Sincerity of purpose and Capacity are proved even his enemies come to respect him”**

A.JUNAID BAIG (SECOND YEAR)

**PENCIL DRAWING**



B.KOWSALYA (FINAL YEAR)

N.VIMAL CATHRAINE

DEVAPRIYA (SECOND YEAR)



**Selected Teachings of Swami Vivekananda:**

- ✓ My ideal, indeed, can be put into a few words, and that is: to preach unto mankind their divinity, and how to make it manifest in every movement of life.
- ✓ Education is the manifestation of the perfection already in man.
- ✓ We want that education by which character is formed, strength of mind is increased, the intellect is expanded, and by which one can stand on one's own feet.
- ✓ Strength, strength it is that we want so much in this life, for what we call sin and sorrow have all one cause, and that is our weakness. With weakness comes ignorance, and with ignorance comes misery.
- ✓ Purity, patience, and perseverance are the three essentials to success, and above all, love.
- ✓ Religion is the manifestation of the Divinity already in man.
- ✓ Teach yourselves, teach everyone his real nature, call upon the sleeping soul and see how it awakes. Power will come, glory will come, goodness will come, purity will come, and everything that is excellent will come when this sleeping soul is roused to self-conscious activity.
- ✓ They alone live who live for others, the rest are more dead than alive.
- ✓ This is the gist of all worship – to be pure and to do good to others.



**10 Most Inspiring  
Quotes From  
Education Activist -  
Malala Yousafzai**

MUZZAMMIL SUFFIYAN  
(SENOND YEAR)

- ✓ "One child, one teacher, one book, one pen can change the world."
- ✓ "I don't cover my face because I want to show my identity."
- ✓ "Let us make our future now, and let us make our dreams tomorrow's reality."
- ✓ "I don't mind if I have to sit on the floor at school. I want an education and I am afraid of no one. Education is the power terrorists fear most."
- ✓ "I don't know why people have divided the whole world into two groups, west and east. Education is neither eastern nor western. Education is education and it's the right of every human being."
- ✓ "After the PM presented me with the award and cheque, I presented him with a long list of demands."
- ✓ "Some people only ask others to do something. I believe that, why should I wait for someone else? Why don't I take a step and move forward."
- ✓ "When someone takes away your pens you realize quite how important education is."
- ✓ "When the whole world is silent, even one voice becomes powerful."
- ✓ "I don't want to be thought of as the "girl who was shot by the Taliban" but the "girl who fought for education." This is the cause to which I want to devote my life."

## 5G TECHNOLOGY

We've only had 4G cellular networks for a few years, but all the wireless carriers are already talking about 5G. It's actually surprisingly easy to do so, because there isn't any official definition of 5G yet. What's happening now is that all the players in the wireless world, from chipset makers to carriers, are jockeying to be able to define 5G and establish themselves as 5G leaders.

So head with me down the rabbit hole that is 5G as I try to explain what the heck is going on here.

### 1G, 2G, 3G, 4G, 5G

The G in 5G means it's a generation of wireless technology. While most generations have technically been defined by their data transmission speeds, each has also been marked by a break in encoding methods, or "air interfaces," which make it incompatible with the previous generation.

1G was analog cellular. 2G technologies, such as CDMA, GSM, and TDMA, were the first generation of digital cellular technologies. 3G technologies, such as EVDO, HSPA, and UMTS, brought speeds from 200kbps to a few megabits per second. 4G technologies, such as WiMAX and LTE, were the next incompatible leap forward, and they are now scaling up to hundreds of megabits and even gigabit-level speeds.

### What Is 5G?

5G is a new network system that has much higher speeds and capacity, and much lower latency, than existing cellular systems. The technologies to be used in 5G are still being defined, but there are some general themes everyone agrees on.

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5G networks will use a type of encoding called OFDM, which is similar to the encoding that LTE uses. The air interface will be designed for much lower latency and greater flexibility than LTE, though.

The new networks can use frequencies as low as old TV channels, or as high as "millimeter wave," which are frequencies that can transmit huge amounts of data, but only a few blocks at a time. 5G may also bring in Wi-Fi as a seamless part of a cellular network, or transmit LTE-encoded data over Wi-Fi frequencies, which is called LTE Unlicensed.

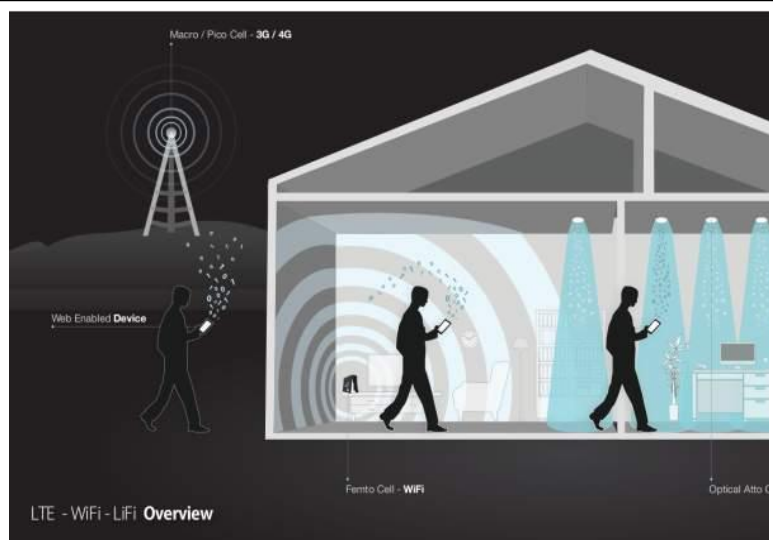
5G networks are much more likely to be networks of small cells, even down to the size of home routers, than to be huge towers radiating great distances. Some of that is because of the nature of the frequencies used, but a lot of that is to expand network capacity.

AT&T has also spoken of "edge intelligence" as being part of its 5G vision. With edge intelligence, the individual small cells have much more autonomy to decide how and where to route data, which can greatly lower latency.

So 5G networks need to be much smarter than previous systems, as they're juggling many more, smaller cells that can change size and shape. But even with existing macro cells, Qualcomm says 5G will be able to boost capacity by four times over current systems by leveraging wider bandwidths and advanced antenna technologies.

The goal is to have far higher speeds available, and far higher capacity per sector, at far lower latency than 4G. The standards bodies involved are aiming at 20Gbps speeds and 1ms latency, at which point very interesting things begin to happen.

## LiFi Technology: 5 Fast Facts You Need to Know



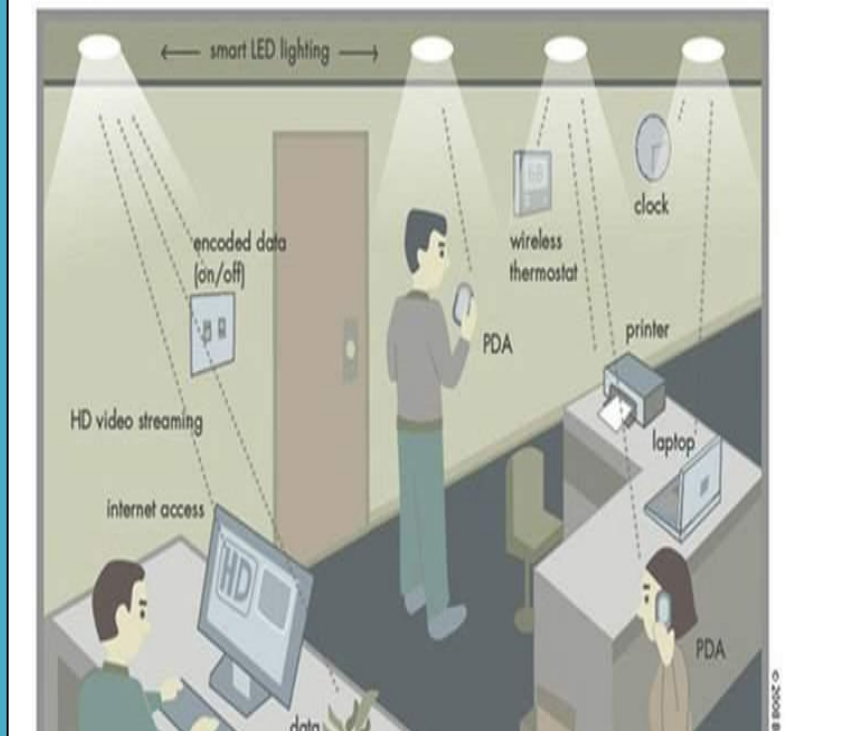
Here are many things people take for granted in life: clean water, food, public transportation, sunlight, free Wi-Fi.

OK, scratch the last one. However, the possibility of internet access for everyone could become reality. That light bulb over your head (literally) can transmit signals - much in the same way Wi-Fi does- that hook your computer up to the internet. Already some grocery stores in France are using Li-Fi to track consumer's shopping habits. While the light fidelity technology is still in its early phases, it's shown tremendous potential. The global market is projected to expand to \$115 billion by 2022 and could conceivably replace Wi-Fi.

Here's what you need to know about the nascent, but promising technology.

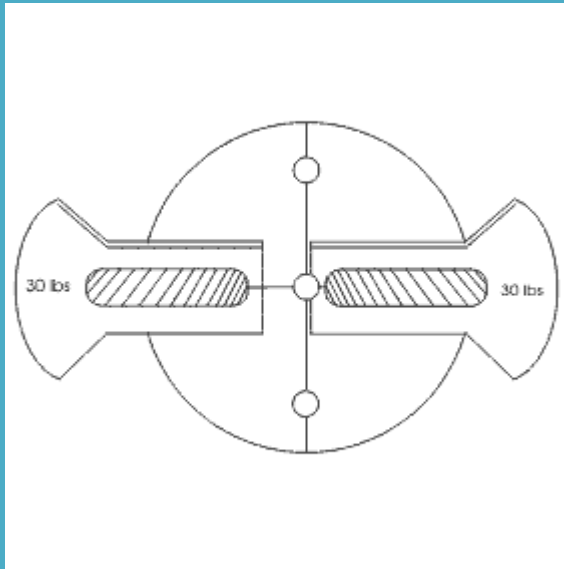
1. Li-Fi Harnesses the Power of Visible Light Instead of Radio Waves Used by Wi-Fi
2. Li-Fi Has Been Integrated into Some Smartphone Cameras
3. The Inventor of Li-Fi started a Company Called pureLi-Fi and Microsoft is a Fan

#### 4. Li-Fi is Virtually Hack-Proof



5. Li-Fi can be Applied in Settings Where Wi-Fi Doesn't Work

V. THIYAGARAJAN (FINAL YEAR)



**The Fuelless Gravity Motor** is what I invented before I discovered the Fuelless Engine! You will not be able to run a car with it, but you can build one to generate AC or DC electricity for your home. This invention is basically like a windmill generator but does not require wind to make it run. Instead it uses gravity, inertia and leverage as its main sources of power as well as a small input of electrical power to start and keep the free energy reaction going. ( 1200V dc pulses x .10 milliamps ). Most free energy devices have to have some kind of input energy to get the chain reaction going. The only free energy device that I have seen running without a small input of energy, is an all permanent magnet motor (our **Fuelless Engine** is also considered as a permanent magnet motor ).

A free energy permanent magnet motor needs no outside source of energy, it uses nothing but magnets to run itself.

The plans are well illustrated, and supplies are easy to find in most hardware stores and on the internet. Parts and supplies can be ordered by phone and mailed right to your front door from any internet supplier. This device is easy to build! The longer the arms are built the more horsepower and torque you will get at the rotor shaft area as well as adding more weight to the end of the arms to increase the torque leverage area.

#### Free Electricity for your Home!

You may even be able to use our gravity motor design to run a low rpm windmill generator to keep up a 12V DC deep cycle battery bank ( or use our low rpm high efficiency SP500 generator ). The battery bank is then connected to a 115V ac inverter which converts the 12V DC into 120V AC to help run lighting and appliances in your home.

The *Gravity Motor* uses balance as its main force of power and unlike many so-called gravity motors out there, **This one really works!** In 1995 we did our own patent search and found no other Gravity Motor like this.

**It is easy to build and will amaze all your friends!**

C.KARTHICK (THIRD YEAR)



## 2016 EDITORIAL

The magazine has always created ripples of fun and entertainment with the creativity of our students. It is a means to capture and commemorate the excitement that we have had in the college. Ripples celebrates the spirit of creativity and is a pleasant experience for everyone associated with it. It has new things every year adding to the beauty and encouraging more students to participate and display their literary talent and creativity. It has been the perfect example of the enthusiasm and inspiration seen in no other. The magazine celebrates the greatness of the college, the achievements of the individual departments and recognizes the stars of the college. The Editorial Board has been versatile and always brings in new ideas, making it better every year. The creative search, experimentation and timely corrections are positive attitudes and unique features of Priyadarshini engineering College. Ripples is a creation fledging with innovative and creative ideas of the Priyadarshini engineering College in every page. It is not just another edition of Ripples but an anthology of the thoughts of the youth. It also analyses the general perspectives of education that will inspire everyone. The overwhelming support from the Editorial Board is worth mentioning.

### TEAM MEMBERS

Mrs.N.JAYANTHI,M.Tech.,(Ph.D)

Mrs.K.MALARKODI,M.Tech.,(Ph.D)

Mr.S.NIRMALRAJAN,M.E .,(Ph.D)