

March 2017

Srinivas Institute of Technology, Mangaluru
Department of Automobile Engineering

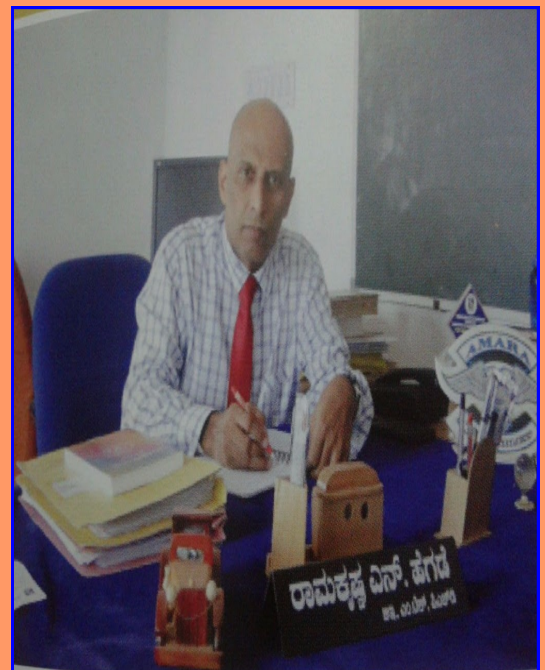
Volume 1, Issue 2



H.O.D'S MESSAGE

Second issue of Automobile Engineering department's e-newsletter "Auto Thrust" has come out very well. During the current semester, department arranged two industrial visits for the benefit of students. It is a positive sign that good number of students participated in sports, cultural and technical activities held at inter and intra college level. Department also had one session in campus cleaning as part of 'Swachh Abhiyaan'. Highlight of the current semester is procurement of a new 'Multi Fuel Research Engine Test Rig', to further support and rekindle research interest among students and faculty members. I am thankful to the management and the Principal for their support and the encouragement. The department has further plans to extend and commercialize certain lab facilities in the coming days. I request the students and faculty to fully utilize the facilities.

Dr. Ramakrishna N. Hegde



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Editorial Board

Valuable Guidance

Dr. R. K. Hegde
(HOD AU)

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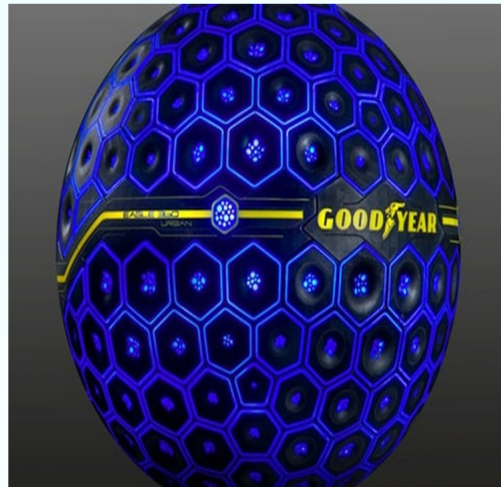
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Spherical concept tyre takes Artificial Intelligence on the road

At last year's Geneva Motor Show, Goodyear unveiled a spherical tyre concept known as the Eagle 360. Linked to the car using a magnetic levitation suspension system (theoretically, at least), a set of the tyres would allow the vehicle to move in any direction – even side-



ways. At *this* year's show, the company has pushed the concept a step further, with the artificial-intelligence - packin' Eagle 360 Urban.

Like its predecessor, the 360 Urban's exterior consists of a sensor-laden rubber "bionic skin." This would allow it to continuously monitor road conditions, *and* adapt its tread accordingly.

The new tyre would do the latter via electrically-triggered actuators beneath its surface, which pull the individual tread elements in to form "dimples" in wet conditions,

or pushes them out to form a smooth tread when the roads are dry. Using its artificial intelligence system, it could then learn what tread patterns work best in which conditions, and apply that knowledge in the future.

It's also designed to communicate via the internet with other vehicles that are running the same kind of tyres. In this way, it could both transmit and receive data regarding conditions on the road ahead, allowing the tread to change proactively so it's ready for what's coming.

Additionally, its "brains" would allow it to detect when punc-

KR Market of Bengaluru is the first locality in the whole of Asia to get electricity

tures occur. Should this happen, it could rotate itself so that the punctured section was no longer making contact with the road. Sealant would then flow out from within the tyre, sealing the hole.

So, how long will it be before you see a set of Eagle 360 Urbans on a vehicle near you? Well, they obviously won't fit on regular cars, so compatible vehicles will have to be manufactured first. Judging by the scenery in the video below, that might not be for a while.

Short Introduction of Karnataka state

Formation - 1 November 1956 (as Mysore State)

Capital City - Bengaluru

Largest city - Bengaluru

Districts - 30

Government Body

Government of Karnataka

Governor -Vajubhai Vala

Chief Minister -

Siddaramaiah (INC)

Legislature -

Bicameral (224 + 75 seats)

High Court -

Karnataka High Court

Area Total - 191,791 km² (74,051 sq mi)

Area rank - 7th

Population (2011)

Total - 61,130,704

Rank - 8th

Density - 320/km² (830/sq mi)

Demonym(s) - Kannadiga

ISO 3166 code - IN-KA

Official language - Kannada

Regional Languages - Tulu, Kodava, Konkani.

Literacy Rate - 75.60% (16th in states, 23rd if Union Territories are counted)

Song - Jaya Bharata Jananiya Tanujate

Dance - Yakshagan

Tree - Sandalwood

“Bespoke Land Rover Discovery launches a search drone from its roof”

Drones are poised to make a very positive impact on search and rescue efforts going forward, with the award-winning Gimball, the hiker -

The included drone has a range



trailing Sentry and Lockheed Martin's Indago just a few examples of aircraft built for this purpose. Looking to make a contribution of its own, Land Rover has teamed up with the British Red Cross for a purpose-built search and rescue drone that launches from the roof of a bespoke version of the new Discovery.

The special version of the Discovery has been dubbed Project Hero and was built specifically for use by the Austrian Red Cross. On show at Geneva this week, the vehicle is based on the 3.0-liter TD6 engine-powered version of the Land Rover Discovery and has a few extra modifications that might come in handy. These include a sliding floor in the trunk that can be used as a work surface or to protect cargo underneath, extra power points, special LEDs to help with night vision,

of 1 km (0.62 mi), is controlled using a tablet app from within the car, and streams live footage from above back to the emergency response team. It launches from the roof and returns via what Land Rover calls self-centering and magnetic retention technology. The company doesn't go into detail about how that works, but claims that it will allow the drone to land autonomously on top of the vehicle even when it is in motion.

Do you know??
Mysureans were pioneers in using Rocket / Missile and Aeroplane building .
Tippu sultan's Mysurean Rocket was world's first missile Rocket.

Success consists of doing the common things of life uncommonly well

“The Future of Automobiles”

Even though automobiles have changed significantly since their introduction, the pace of improvements in automobiles is increasing – especially related to advancements to combat their negative impacts. Some futurists predict the appearance of autonomous autos – self-driving cars – within the next decade.

Extreme Tech reports that Mercedes-Benz unveiled their driverless car at the 2015 Consumer Electronics Show, the F-105 luxury vehicle, which comes with front seats that swivel so that the driver and front-seat passenger can sit face-to-face with the back-seat passengers. Meanwhile, BMW has demonstrated its i3 EV that self-parks and can search a parking garage for open spaces.

According to CNBC, some analysts predict that new manufacturers such as Google and Apple will supplant traditional mass automobile manufacturers like General Motors, Ford, Honda, and Volkswagen with their head start on new technology.

Significant improvements will reduce the negative impact of automobiles in the future. These include the following aspects and elements.

Design

The first automobiles resembled the horse-drawn carriages that they replaced, simple boxes on wheels. Early manufacturers had little knowledge of aerodynamics – the resistance of objects moving through the air, or “drag.” Drag increases proportionately with speed. Future cars are likely to be shorter with more curves while maintaining or increasing interior space for passengers.

Materials

A car's weight directly affects the fuel consumption used during operations. However, much of the advantage was offset by an increase in vehicle size and added functionality. Continued federal pressure to increase fuel economy will result in a greater use of lightweight steel, aluminum, composite materials, and plastics to reduce weight and improve crashworthiness. For example, the Tesla Roadster's body is constructed from a lightweight carbon fiber/epoxy composite that is as strong as steel and weighs 30% less.

As manufacturing costs of the material come down, more manufacturers will turn to the revolutionary new composite materials for their vehicles.

Mechanical Efficiency

The four-stroke internal combustion engine has been the primary power source for automobiles for decades. Over the years, technological advances such as double overhead cams with four valves with variable valve timing, forced induction of air, fuel injection, computer-adjusted fuel injection, and variable valve timing has increased engine efficiency and power.

ಅರಿವಿನ ಮನೆಯೊಳು ಗುರುವಿನ ಹುಡುಕಾಟ,
ಅರಿಯದೇ ಕೂತ ಮನಸೋಳು ಪೊಳ್ಳು ಯೋಚನೆಗಳ
ಅಲೆದಾಟ !!!! ಎಲ್ಲ ಬಲ್ಲವ ಮೇಲಿರುವಾಗ ನಮ್ಮದು
ನಿಮ್ಮದು ಬರಿ ಚದುರಂಗದಾಟ!!!

As of 2015, hybrids – a combination of the gasoline engine and the electric motor – have not become popular in parts of the United States. According to Experian Automotive, one in four hybrids have been sold in California, an amount greater than the next five states (Florida, Texas, New York, Virginia, and Washington) combined.

Although most of the major auto manufacturers currently offer a hybrid model, Toyota's Prius models have dominated the market with about 5 million total sales since 2000,

Final Word

Automobiles of the future will be as different from today as the first automobiles differed from the horse and buggy. Driverless cars will be significantly more energy-efficient, safer, less damaging to the environment, and more economical to operate than any mode of transportation in the human experience.

Sandeep

8th Semester

Dept. of Automobile Engineering

SIT Mangaluru

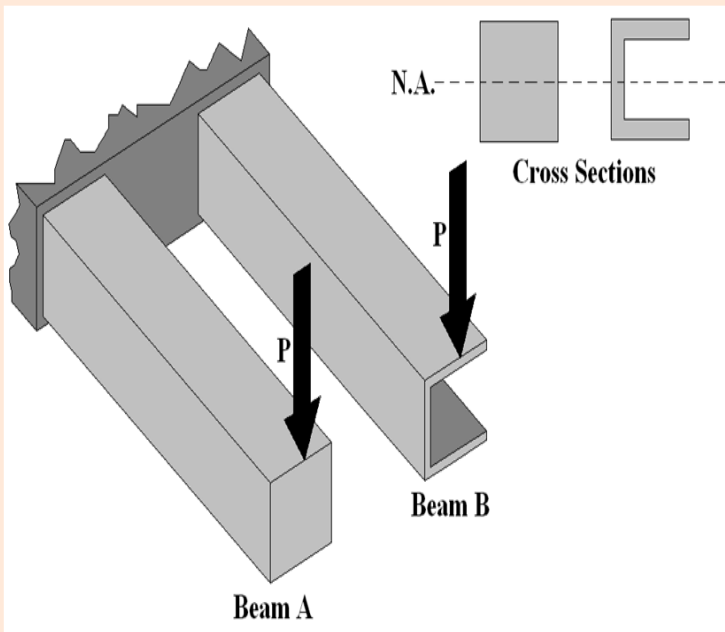
All power is within you; you can do anything and everything.

SHEAR CENTER AND ITS IMPORTANCE

The beams have involved possessing symmetric cross-sectional areas. These geometries include but are not limited to square and rectangular bars, as well as solid and hollow circular rods. Cases exist where an object does not contain a symmetric cross-sectional area with respect to the loading axis. The result is, the beam will exhibit both bending and torsion. This case of combined loading is dangerous since the beam, designed to resist bending, could potentially fail from torsion prior to failing from bending. To load an object in pure bending, the load must be placed through an object's shear center.

Shear center:

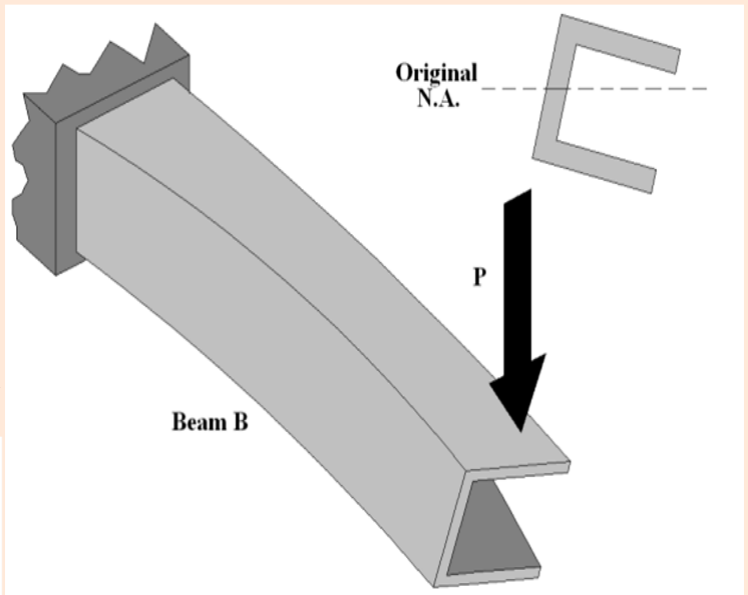
Pure bending can be defined as bending without torsion. The shear center is defined as the "point on a line parallel to the axis of a beam through which any



transverse force must be applied to avoid twisting of the section as shown in figure 1. Beam A has a symmetric cross-section, while beam B possesses a non-symmetric cross-section with respect to the loading axis (direction of load P). To achieve a state a pure bending in Beam A, the load is applied through the centroid of the

beam's cross-sectional area. The beam will deflect straight down as predicted.

If the same load P is applied at a location right of the vertical section of Beam B, the beam will bend and twist creating a state of combined loading. This type of loading is shown in Figure 2. The reason for this behaviour of the beam is non symmetric nature of



the beam cross section. Because of this non symmetric nature of loading, the beam is subjected to both bending and twisting moments.

For design purposes, this type of combined loading is very dangerous. If a beam is designed for pure bending but endures a torsional load, the beam could potentially fail from torsion before bending. So, to avoid twisting moments the load must be applied at the shear center of the cross section.

Mr. Avinash H S

Asst. Professor

Department of Automobile Engineering

***NITK Surathkal is the only college
in the world to have its private beach***

Don't complain about changes if you're not willing to change.



Annual Day, Founders Day and Graduation Day



Multi Fuel Research Engine Test Rig



Govt. High School students from Puttur interacting with Prof. Jerome Anthony during their visit to SIT Automobile Lab



Industrial visit to KSRTC workshop Bengaluru by 4th sem Automobile students



Industrial Visit to Mt & t Chennai by 6th sem automobile students



ENVISION 2K17



Srinivas Institu
Srinivas Colleg
Srinivas Institu
Srinivas Institu
Srinivas Colleg
Srinivas Pre U
Srinivas Schoo
Srinivas Institu
Srinivas Instit
Vijayalakshmi
Srinivas Schoo
A. Shama Rao



SIT Sports day 2017

Overall champions of sports meet 2017 which was held at MIT

“Composite Materials In The Automotive Industry”

Composite materials may someday have big advantages over steel in automobile manufacturing. Composites are being considered to make lighter, safer and more fuel-efficient vehicles. A composite is composed of a high-performance fiber (such as carbon or glass) in a matrix material (epoxy poly-

strength-to-weight and stiffness-to-weight ratios, as well as excellent energy-absorbing capability per mass,” says Dan Adams, professor of mechanical engineering at the University of Utah who is collaborating with ORNL on the development of test methods for automotive composites. “Steel is strong



mer) that when combined provides enhanced properties compared with the individual materials by themselves.

*ಚಿಂತೆಗೂ ಚಿಂತೆಗೂ ಒಂದು ಸೊನ್ನೆಯಷ್ಟೇ
ವ್ಯತ್ಯಾಸ... ಆದರೆ!! ಚಿಂತೆ ಸತ್ತ ದೇಹವನ್ನು
ಸುಟ್ಟರೆ ಚಿಂತೆ ಬದುಕಿರುವ ದೇಹವನ್ನೇ
ಸುಡುತ್ತದೆ !!!!*

Carbon-fiber composites weigh about one-fifth as much as steel, but are as good or better in terms of stiffness and strength. They also do not rust or corrode like steel or aluminum, and they could significantly increase vehicle fuel economy by reducing vehicle weight by as much as 60 percent, according to the Oak Ridge National Laboratory (ORNL). “With composite materials, we get high

and inexpensive, which is why it’s the material of choice today. But composites can be designed to be strong and light to provide better safety and fuel efficiency.” Adams says that the strength and stiffness factors are why composites are currently used in aerospace applications, which also require a material that is extremely light. And compared to single-layered steel in cars, multiple-layer composite laminates can be designed to absorb more energy in a crash.

“However, the use of these materials in the automotive industry has been very limited partly because of the costs associated with the materials and manufacturing,” he says. Adams and his associates are addressing these issues, along with design safety, as they develop test methods and assess candidate composites for automotive applications.

God sleeps in the minerals, awakens in plants, walks in animals, and thinks in man.

“Measures to Control Population of India”

Population of India is quite large and rapidly increasing. One percent growth rate means an addition of 1 crore people every year but actually speaking 2 crore persons are being added every year. So effective population control measures is the need of the hour. We know that birth rate is mainly responsible for rapid population growth. Hence measures which can reduce the birth rate should be adopted. These measures can be classified into 3 heads.

A. Social Measure:

Population explosion is a social problem and it is deeply rooted in the society. So efforts must be done to remove the social evils in the country.

1. Minimum age of Marriage:

As fertility depends on the age of marriage. So the minimum age of marriage should be raised. In India minimum age for marriage is 21 years for men and 18 years for women has been fixed by law. This law should be firmly implemented and people should also be made aware of this through publicity.

ನಗೆ ಹನಿ
ಮಾಸ್ಕರ್ : "ಮೊದಲನೇ ಮಹಾಯುದ್ಧವನ್ನು
ಮೂರು ವಾಕ್ಯದಲ್ಲಿ ಹೇಳು" ???
ಗುಂಡ : ಅವು ಇವಿಗೆ ಹೊಡೆದ್ದು..
ಇವು ಅವರಿಗೆ ಹೊಡೆದ್ದು..
ಬದುಕುಳಿದವರು ಮನೆಗೆ ಹೋದ್ದು.....

2. Raising the Status of Women:

There is still discrimination to the women. They are confined to four walls of house. They are still confined to rearing and bearing of children. So women should be given opportunities to develop socially and economically.

3. Spread of Education:

The spread of education changes the outlook of people. The educated men prefer to delay marriage and adopt small family norms. Educated women are health conscious and avoid frequent pregnancies and thus help in lowering birth rate.

4. Adoption:

Some parents do not have any child, despite costly medical treatment. It is advisable that they should adopt orphan children. It will be beneficial to orphan children and children couples.

Mangaluru is the only city in Karnataka to have all three forms of transport

B. Economic Measures:

1. More employment opportunities:

The first and foremost measure is to raise, the employment avenues in rural as well as urban areas. Generally in rural areas there is disguised unemployment. So efforts should be made to migrate unemployed persons from rural side to urban side. This step can check the population growth.

2. Development of Agriculture and Industry:

If agriculture and industry are properly developed, large number of people will get employment. When their income is increased they would improve their standard of living and adopt small family norms.

3. Urbanisation:

It is on record that people in urban areas have low birth rate than those living in rural areas. Urbanisation should therefore be encouraged.

C. Other Measures:

1. Publicity:

The communication media like T.V., radio and newspaper are the good means to propagate the benefits of the planned family to the uneducated and illiterate persons especially in the rural and backward areas of country.

2. Incentives:

The govt. can give various types of incentives to the people to adopt birth control measures.

After creation of Telangan state, Karnataka officially became the largest south Indian state.

Let your life lightly dance on the edges of Time like dew on the tip of a leaf.

Latest two wheel vehicle**KTM 390 Duke****Displacement** - 373.2 cc**Maximum Power** - 42.90 Bhp @ 9000 rpm**Maximum Torque** - 37 NM @ 7000 rpm**No. of Cylinders** - 1**No. of Gears** - 6**Cost** - Rs. 2,02,127**TATA TIGOR XE (yet to be launch)****Engine**- 1.2-litre petrol, 1.05-litre diesel**Power** - 84bhp @ 6,000rpm, 69bhp @ 4,000rpm**Torque** - 114Nm @ 3,500rpm, 140Nm @ 3,000rpm**Transmission** 5-speed manual/AMT,

5-speed manual

Compression ratio - 10.8:1**Cost** - Rs. 4.3 lakhs, 5.5 lakhs**HONDA Dio (yet to be launch)****Expected price** - Rs 48,651**Engine** - 109.20cc**Power output** - 8bhp at 7,000rpm**Torque** - 8.77Nm at 5,500rpm**Mileage** - 62kmpl**Colour** - Yellow-Matte Grey, Matte Grey, Orange-Matte Grey, Candy Jazz Blue,**FORD Kuga (yet to be launch)****Body type** - SUV/MUV**Expected launch** - March 2017**Expected Price** - Rs. 16 to 17 lacs**engine** - 1.5 litre**Power** - 150 bhp**Transmission** - dual clutch automatic transmission**Fuel Type** - Petrol / Diesel

The future belongs to the competent. Get good, get better, be the best!

Definition of some common terms of Automobile

1. **Automobile:** A self-propelled passenger vehicle that usually has four wheels and an internal-combustion engine, used for land transport.
2. **ABS:** Antilock braking system. A computer-controlled system that prevents brakes from locking up and tires from skidding during hard braking.
3. **Airbags :** A cushion that deploys and fills with air when a major impact occurs to reduce a vehicle occupants chances of coming in contact with the vehicles interior surfaces.
4. **Air Brakes :** Usually found on heavy-duty trucks, using compressed air to operate.
5. **Alloy Wheels :** Any non-steel road wheel. Mostly aluminum, but technically a mixture of two or more metals.
6. **AWD :** All-wheel drive. A drive train that employs a front, rear and center differential to provide power to all four wheels of a vehicle.
7. **Blind spot :** The area behind and to the side of a vehicle that is hard to see in either the side or rear view mirrors.
8. **Carburetor :** A device used on older internal combustion gasoline engines that is mounted on the engines intake manifold and supplies air fuel mixture to the engine.
9. **CC (Cubic Centimeter):** The displacement volume of the engine i.e. the volume covered by the stroke of the piston multiplied by the number of cylinders the engine has, more CC = more power, More torque.
10. **Chassis :** This is the part of the car in which the driver sits and to which the engine and suspension are attached.
11. **Hybrid vehicle :** A vehicle that combines the use of internal combustion and electricity as power sources.
12. **Moped :** A lightweight motorized bicycle that can be pedaled as well as driven by a low-powered gasoline engine with capacity of not more than 50 cc.
13. **Power steering :** An electric and/or hydraulic system that multiplies, for ease and comfort, the force a driver exerts on the steering wheel.
14. **Spoiler :** An attachment to a vehicle (or component of its body) originally introduced for the purpose of directing airflow over such device (or the entire vehicle) to decrease lift and increase stability at high speeds, but that is sometimes used on consumer vehicles solely for aesthetic reasons.
15. **Supercharger :** A device powered by a belt, gear, shaft or chain connected to the engines crankshaft that forces air into an internal-combustion engine in order to increase engine power.
16. **Tachometer :** An instrument that tells the driver how fast the engine is rotating, commonly including a redline to indicate the maximum engine speed.
17. **Torque :** A measurement of an engine's power that indicates how forcefully it can rotate the crankshaft at a given engine speed.
18. **Turbocharger :** Sometimes referred to as a "turbo- supercharger." A device that uses an exhaust-driven turbine to force air into an internal-combustion engine in order to increase engine power.
19. **Wheel alignment :** The adjustment of various components to meet predetermined specifications for camber, caster, toe and ride height.

I changed my password everywhere to 'incorrect.' That way when I forget it, it always reminds me, 'Your password is incorrect.'

Continue.....

It's not what happens to you, but how you react to it that matters.

Best outgoing Student	Prajat J shetty (8th sem)
Topper (8th sem 1st)	Hitesh kumar
Topper (8th sem 2nd)	Joshua periera
Topper (6th sem 1st)	Praveena
Topper (6th sem 2nd)	Jwalin M
Tattoo Art	Mohith N Madhaw & Prithvi Acharya
Auto Puzzle	Mohith N Madhaw & Prithvi Acharya

Students projects sponsored by KSCST

Title of the Project	Design & Fabrication of foldable Electric Tricycle
Students name	Prajwal kumar, Hitesh k, chethan, Joshua periera
Guide	Santhosh Kumar K
Amount Sactioned	Rs. 8500
Title of the Project	Design & Fabrication of single cylinder turbocharger for two wheeler with zero turbolag
Students name	Linto anthony, vaishnav, Fijrold F, Sayanth manohar
Guide	Prakash ST
Amount Sactioned	Rs. 7500

ವಿದ್ಯುತ್ ಸಮಸ್ಯೆ ಮತ್ತು ನಮ್ಮ ಆಲಸ್ಯತನ

ಉಫ್ !! ಯಾಕಾದ್ರೂ ವಿದ್ಯುತ್ (current) ತೆಗೆತಾ (Toilet) ಮತ್ತು ಸ್ನಾನದ ಕೋಣೆಯ (Bathroom) ಬಲ್ಬುಗಳು ಇದ್ದಾರೋ? ಈ ಕೆವಿಎಂ (KEB) ಮತ್ತು ಸರ್ಕಾರದವರು ನಿಧ್ಧ ಅದೇನು ಪುಣ್ಯ ಮಾಡಿದ್ದವೋ ಗೊತ್ತಿಲ್ಲ!!!, ಯಾವಾಗಲೂ ಮಾಡ್ತಾ ಇದ್ದಾರಾ?? ಇವರಿಗೆ ನೆಟ್ಟಗೆ ವಿದ್ಯುತ್ ಕೊಡೋಕೆ ಆಗ್ತಾ ಉರಿಯುತ್ತ ಇರುತ್ತವೆ.

ಇದರ ಬಗ್ಗೆ ಹೇಳುತ್ತಾ ಹೋದರೆ ದೊಡ್ಡ ಲೇಖನವೇ ಆಗಿ ಬಿಡುತ್ತೆ. ಏಷ್ಟು ಹೇಳಿದರು ಸಾಕಾಗೋದಿಲ್ಲ. ಈ ಸಮಸ್ಯೆಗೆ ನಾವೇ ಹೊಣೆಯಾಗಿದ್ದೇವೆ. ಅದಕ್ಕೆ ಇನ್ನು ಮೇಲಾದರೂ ನಾವು ನಮ್ಮ ಆಲಸ್ಯತನ ಬಿಟ್ಟು ವಿದ್ಯುತ್ ಉಳಿತಾಯ ಮಾಡೋಣ!!!! ತಕ್ಕಮಟ್ಟಿಗೆ ಆದರೂ ಈ ಸಮಸ್ಯೆಯನ್ನ ಕಡಿಮೆ ಮಾಡೋಣ.

ವಿದ್ಯುತ್ ಕಡಿತಕ್ಕ ಅದರ ಅಭಾವ (Shortage) ಅಥವಾ ಏನಂತೀರಾ?? ಇನ್ನು ಕೆಲವರಿಗೆ ಇದರ ಬಗ್ಗೆ ಹೇಳೋಕೆ ತಾಂತ್ರಿಕ ಸಮಸ್ಯೆ ಕಾರಣವಿದ್ದಿರಬಹುದು. ಅದರ ಅಭಾವಕ್ಕೆ ಹೋದರೆ ನಮ್ಮ ಮನೆ, ನಮ್ಮ ದುಡ್ಡು ಎಂಬ ಅಹಂಕಾರದ ಕಾರಣ ಏನಿರಬಹುದು???? ಒಂದು ಮಳೆಯ ಪ್ರಮಾಣ ಕಡಿಮೆ ಮಾತುಗಳನ್ನು ಆಡುತ್ತ ಇರುತ್ತಾರೆ. ಅಸಲಿಗೆ ಅವರ ಮನೆಯ ವಿಧ್ಯುತ್ ಬಿಲ್ಲು ಎಷ್ಟು ಬರುತ್ತೆ ಅಂತಾನೆ ಅವರಿಗೆ ಗೊತ್ತಿರಲ್ಲ!! ವಿದ್ಯುತ್ ಬಿಲ್ಲು ಎಷ್ಟು ಬರುತ್ತೆ ಅಂತಾನೆ ಅವರಿಗೆ ಗೊತ್ತಿರಲ್ಲ!! ಹೇಳೋದನ್ನ ಹೇಳಿ ಆಗಿದೆ, ಉಳಿದದ್ದು ನಿಮಗೆ ಬಿಟ್ಟ ವಿಚಾರ.

ಅಂತೆಲ್ಲ ನಾವೆಲ್ಲ ಯೋಚನೆಯನ್ನೇ ಮಾಡೋದಿಲ್ಲ !!!!
ವಿದ್ಯುತ್ ಕಡಿತಕ್ಕ ಅದರ ಅಭಾವ (Shortage) ಅಥವಾ ತಾಂತ್ರಿಕ ಸಮಸ್ಯೆ ಕಾರಣವಿದ್ದಿರಬಹುದು. ಅದರ ಅಭಾವಕ್ಕೆ ಹೋದರೆ ನಮ್ಮ ಮನೆ, ನಮ್ಮ ದುಡ್ಡು ಎಂಬ ಅಹಂಕಾರದ ಕಾರಣ ಏನಿರಬಹುದು???? ಒಂದು ಮಳೆಯ ಪ್ರಮಾಣ ಕಡಿಮೆ ಮಾತುಗಳನ್ನು ಆಡುತ್ತ ಇರುತ್ತಾರೆ. ಅಸಲಿಗೆ ಅವರ ಮನೆಯ ವಿಧ್ಯುತ್ ಬಿಲ್ಲು ಎಷ್ಟು ಬರುತ್ತೆ ಅಂತಾನೆ ಅವರಿಗೆ ಗೊತ್ತಿರಲ್ಲ!! ವಿದ್ಯುತ್ ಬಿಲ್ಲು ಎಷ್ಟು ಬರುತ್ತೆ ಅಂತಾನೆ ಅವರಿಗೆ ಗೊತ್ತಿರಲ್ಲ!! ಹೇಳೋದನ್ನ ಹೇಳಿ ಆಗಿದೆ, ಉಳಿದದ್ದು ನಿಮಗೆ ಬಿಟ್ಟ ವಿಚಾರ.

ಹೆಚ್ಚಾಗಿರಬಹುದು!!!!

ಈ ವಿದ್ಯುತ್ ಅಗತ್ಯಕ್ಕೆ, ಅದನ್ನು ಹೇಗೆ ಉಪಯೋಗ ಮಾಡಬೇಕು ಎಂಬ ಸಾಮಸ್ಯೆ ಜ್ಞಾನ ಇಲ್ಲದಿರುವುದು ಮತ್ತು ನಮ್ಮ ನಿಮ್ಮೆಲ್ಲರ ಆಲಸ್ಯತನ (Laziness) ಸ್ವಲ್ಪ ಮಟ್ಟಿಗೆ ಆದರೂ ಕಾರಣವಾಗಿದೆ. ಈ ಸಮಸ್ಯೆಗೆ ನಮ್ಮ ಆಲಸ್ಯತನ ಹೇಗೆ ಕಾರಣವಾಗುತ್ತೆ?!!! ಹೇಗೆಂದರೆ ಮನೆಯ, ಶಾಲೆಯ ಮತ್ತು ಇತರ ಸ್ಥಳಗಳಲ್ಲಿ ಕೋಣೆಗಳ (Room) ಬಲ್ಬುಗಳು ಮತ್ತು ಬೀಸಣಿಗಳು (Fans) ಹತ್ತಿ ಉರಿಯುತ್ತಿರುವುದನ್ನು ನೋಡಿದರು ಆರಿಸದೆ (Off) ಹಾಗೆ ಬಿಡುವುದು ನಮ್ಮ ಆಲಸ್ಯತನಕ್ಕೆ ಒಂದು ಉದಾಹರಣೆ ಆಗಿದೆ. ಇನ್ನು ಕೆಲವು ಮನೆಗಳಲ್ಲಿ ಶೌಚಾಲಯದ

ಪ್ರಕಾಶ ಎಸ್. ಟಿ
ಸಹಾಯಕ ಪ್ರಾಧ್ಯಾಪಕರು,
ಆಟೋಮೊಬೈಲ್ ವಿಭಾಗ

400 million years ago there were 22 hours in a day and more than 400 days in a year.

You may find the worst enemy or best friend in yourself