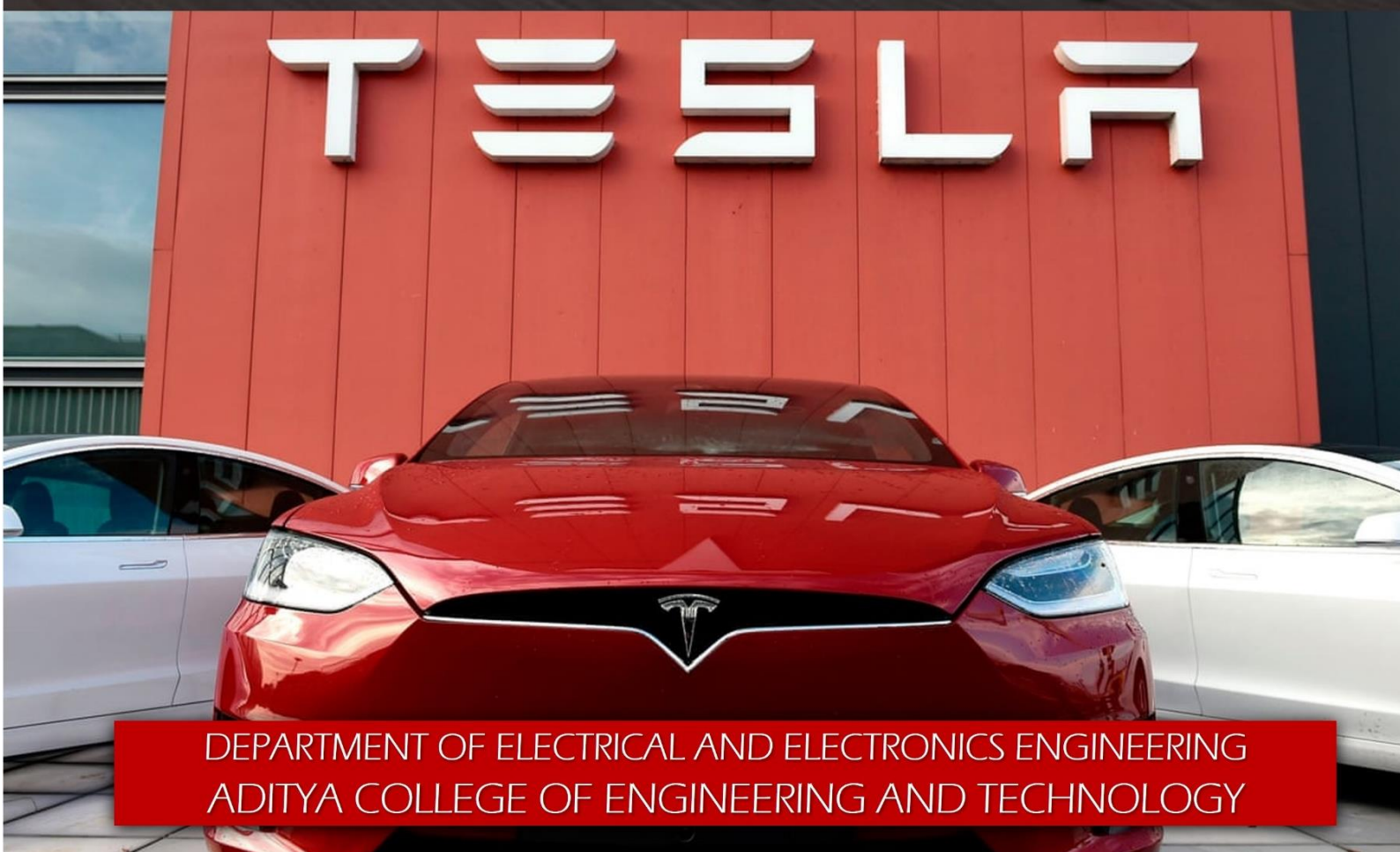
2020-2021

GigaWatt Magazine

VOLUME - 3 ISSUSE - 1 NOVEMBER 2021

Future Transport System



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
ADITYA COLLEGE OF ENGINEERING AND TECHNOLOGY

VISSION OF THE DEPARTMENT

TO BE RECOGNIZED AS A LEADER IN EDUCATION, TRAINING, AND RESEARCH

MISSION OF THE DEPARTMENT

- Provide state-of-art infrastructure to impart technical skills in the frontier areas of electrical and electronics engineering.
- Enable innovative teaching and learning process with collaboration
- To raise professionals, academicians, researchers and entrepreneurs with a passion for Solving societal problems

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CONTENTS

CAREER GUIDANCE

Why Career Guidance is Important?

Have you ever thought about the career guidance? Well! I think majority of students do not consider career guidance a significant issue. Hence, they have no or very little realization about the importance of career guidance. As a matter of fact, career guidance is a very important aspect of your life. In fact, it can make or break your career. In this article, we will discuss about the importance of career guidance. Not just students but working professionals also should give importance to it. Usually, students and employed professionals have no idea of right career guidance. Hence in this article, I will shed some light on this issue.

Nothing Succeeds Like Success

- As we say nothing succeeds like success. And career guidance is very essential for success. If you want to see your career moving in a right direction then career guidance is of utmost importance.
- Everyone wants to be successful but they do not get the right guidance to make right decision at right time. If you have a pre-planned guidance for your career then it can make a lot of difference.
- Today, awareness about career guidance is still very low among younger generation. The culture of going to a counsellor is almost non-existent in our country.
- Therefore, for success it is important that you get right guidance from right person

Planning your Future

- If you are a high school student then your entire future is lying in front of you. I is you with your parents who need to make right decision about your career from now on.
- It is essential that for a bright future you must start planning from now on. And for right planning you need right guidance.
- Right career guidance can tell you, about the career options that could suit you the most. Hence, you can start preparing for that option from the beginning.
- It will give you ample amount of time for right kind of preparation. This could only possible if you take guidance for your career.

Bring Clear Sight of Your Goal

- Everyone has some goal in his or her life. So, what is ambition or target as far as your career is concerned.
- You have to decide in advance and right career guidance could really help you in that.
- The best part of career guidance is that it is very objective as well as strategic. You could get a clear picture what your goal should be or must be.

- Otherwise it is quite normal that students fail to figure out, what they want to do in near future. Career guidance from right person could really help you to figure out perfect career for you

Choosing Right One from Myriads of Career Options

- Today, in the time of globalization, when there are myriads of career options, it is normal that novice students get lost in those options.
- In short, I want to say, they are not able to decide a career which is best for them. The reason for this confusion is hundreds of carers available in just one line.

- This confusion could easily be clarified with the help of career counselling or guidance. Moreover, there are people who have malice intentions. Unfortunately, there are quite a few people.
- They may not want you to succeed. Hence, they are ready to misguide you anytime. You should not fall in the trap of those people and the best way to avoid is through career guidance from right person.

Beat the Competition More Easily

- You do have friends and all are aspiring for same career that you want to be. Could you imagine the competition when so many others are competing? How is it possible that you can easily beat the competition?
- Is there a way out? Yes the best way to beat this competition is to consult a career counselor for right guidance.
- A counselor knows everything about the present state of affairs regarding a particular career option.
- If you are not consulting the right person for your career then you might go haywire.Hence to avoid confusion and deception go for career guidance

Beat the Competition More Easily

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Best Career in India or Abroad

- There are more other complex issues related to choosing a career. We will touch some of those pressing issues. One of them is whether you want to pursue your career in India or abroad.
- If the option is in India then it is OK. But if you want to go outside the country then you have to know the future prospect of the career option you have chosen. Whether inthat particular country, future is good or it may not work well.
- So, the best way to find a solution is through career guidance. The Person could tell whether for a particular career you should stay in India or go abroad. Do not consult from friends or anyone else, always go for a professional advice.
- Organize Finances for Further Education Expenditure

- Today affording education has become so difficult and for many it is out of their means. However, if you get right career guidance then you can choose best colleges and courses at very affordable price.
- If you do not have any idea about the right courses or colleges then you might have to pay more. Hence, the best way to avoid this is taking right guidance because they could give you the most appropriate information.
- You could also plan for your child‘s future that how much you have to spend in next 5 to 10 years. You could take loan and start funding for the education of your child.

Conclusion

Finally, I will conclude by saying never underestimate the importance of career guidance. In our, country where everyone only wants a Sarkari Naukri, they hardly give any importance to other career options. You should open your mind regarding your career. Career guidance could make things a lot easier for you. Although in India the culture of career guidance is limited to big cities but you need to defy this culture and make best use of career guidance

Hence career guidance could save you from all the financial woe

EEE Subject learning Websites

- www.nesoacadamy.org www.nptel.ac.in
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By

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ASSOCIATE PROFESSOR
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Dr. MadanGopal IITProfessor

M.Gopal, an Ex-Professor of IIT Delhi, is globally known academician with

excellent credentials as author, teacher, and researcher. He is the author/co-author of five books on Control Engineering. His books are used worldwide, and some of them have been translated into Chinese and Spanish. McGraw-Hill, Singapore has published his books for the Asia Pacific market; McGraw-Hill, USA has published for the US market. His latest contribution as an author is the book "Applied Machine Learning", McGraw-Hill to be published in June 2018).As teacher, his potential is being used globally through a video course one of the most popular courses on YouTube by the IIT faculty. A recognized researcher in the area of Machine Learning, he is the author/co-author of over 150 research papers; the key contributions have been published in high impact factor journals. He has supervised 16 doctoral research projects 7 of them in the Machine Learning area 2 projects are in progress. His current research interests are in the areas of Machine Learning, Soft-Computing Technologies, Pattern Recognition, and Intelligent Control. M.Gopal holds B.Tech (Electrical), M.Tech (Control Systems), and Ph.D. degrees from BITS, Pilani. His teaching and research stints span four decades at prestigious institutes: IIT Delhi (about three decades); IIT Bombay; BITS Pilani; City University London. Dr. Gopal has been associated with Shiv Nadar University in various capacities since 2012.

By

Mr K.r.k.v.prasad,

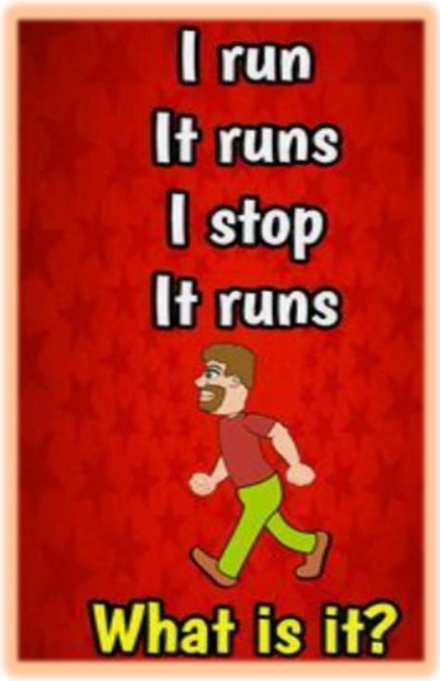
Associate professor, EEE Dep, ACET.

FACULTY ARTICLE

As global economic growth and natural resources dwindle, the energy crisis and environmental degradation have become serious issues for the stable improvement of the world today. Therefore, to use energy effectively countries around the world use different approaches. Based on the Environmental Performance Index, many countries are producing highest CO2 emissions. Both the growth rate of energy use and CO2 emissions in transportation systems are higher than average, which has forced the world to seek more efficient routes in the transportation sector. Because of the economic cost and environmental importance, the electric vehicle has attracted much attention as an alternative to internal combustion engine vehicles. Many government supports ongoing research on various features of EV application to provide in-depth insights into the policy class on electric motion. EV is one of the new eco-friendly modes of transport, for reducing the emission; it acts as an important mode. The EV has become the hub of the trend for new power automobiles based on continuous improvement of battery technology. The enlargement of EVs is a great way to address concerns associated to fossil resource depletion as well as environmental pollution, which will promote sustainable urban growth. The base of the industry growth for the electric vehicle is the Electric Vehicle Charging Station as power supplier of electric vehicle Journal

By
Dr.B.RAJANI,
Professor, EEE dep.

RIDDLES



ANS: HEART BEAT

ANS: ***Paint brush***

By
20P31A0247,
VALLEPU VIJAYA KUMAR.

A Scientific Experiment Riddle

I Was Created By A Scientific Experiment Riddle

I was created by a scientific experiment but I'm not a drug
I have yellow skin but I'm not a banana
I have bolts but I'm not lightning
I'm brought to life by electricity but I'm not a light bulb
I'm 8 feet tall but I'm not a basketball player

What am I?

ANS: **Frankenstein.**

By

18P35A0238

V. DILEEPKUMAR.

.

FITNESS

By

19P31A0201,

ANKIT KACHHAP.

EV charger

A charging station, also called an EV charger or electric vehicle supply equipment (EVSE), is a piece of equipment that supplies electrical power for charging plug-in electric vehicles (including hybrids, neighbourhood electric vehicles, trucks, buses, and others).

Although batteries can only be charged with DC power, most electric vehicles have an on-board AC-to-DC converter that allows them to be plugged into a standard household AC electrical receptacle. Inexpensive low-power public charging stations will also provide AC power, known as "AC charging stations". To facilitate higher power charging, which requires much larger AC-to-DC converters, the converter is built into the charging station instead of the vehicle and the station supplies already-converted DC power directly to the vehicle, bypassing the vehicle's on-board converter.

These are known as "DC charging stations". Most fully electric car models can accept both AC and DC power. Charging stations provide connectors that conform to a variety of standards. DC charging stations are commonly equipped with multiple connectors to be able to supply a wide variety of vehicles. Public charging stations are typically found street-side or at retail shopping centres, government facilities, and other parking areas.

BY

19P35A0239,

AGGALA JOHN KIRAN.

CURRENT ISSUE

New transportation innovations

Here is a preview of what's coming in the world of transportation.

Autonomous aerial vehicles (AAVs)

Will public transportation take to the skies? This could soon be a reality. Successful demonstration flights of Autonomous aerial vehicles (AAVs) have been carried out already. Although similar to drones, which are generally unmanned, AAVs are different. AAVs are essentially autonomous human-carrying drones, designed for transporting passengers.

Most configurations of these flying vehicles use Vertical Take Off and Landing (VTOL) through horizontal rotors, which require no runway. The idea is to put commuters into AAVs, taking them off congested roadways and to their destinations on direct routes, greatly cutting travel times.

Hover bikes

This concept is comparable to an AAV, in that it uses a VTOL platform. However, instead of being unmanned, a human operator rides and controls the hover bike. The form factor resembles a common motorbike with four rotors (quad copter) capable of carrying one person. Again, the aim is to provide a method of mobility that alleviates street traffic for short distance travel. Hover surf, a Russian company, has developed the S3 2019 Hover bike, a battery-powered, and one piece carbon fiber frame, capable of flying 96 KMph at 33 feet of altitude.

Self-driving taxis

Autonomous cars are on the cusp of widespread deployment, although largely still constrained to testing environments and pilot projects. They are on roads today and are active in cities like Las Vegas, where Lyft offers autonomous rides for a fare, in their fleet of 30 ‘Aptiv’ vehicles. These vehicles represent more than just EV and autonomous efficiencies, but rather a Smart Mobility mentality. Using ICT these futuristic taxis communicate with each other, with smart infrastructure and IoT, with customers and gather mass amounts of data to drive further efficiencies while they move around Smart Cities.

The Hyperloop

The idea of the Hyperloop was first envisioned by Elon Musk in 2012. This future mode of transportation is designed for longer haul transportation between cities, countries or even continents. The principle of the Hyperloop is based on the movement of people in capsules or pods that travel and high speeds though tubes over long distances. Inside the tubes is a low pressure environment void of air, while the pods use magnetic levitation (MagLev) technology for propulsion. The low pressure and MagLev, create a very low friction environment allowing the pods to travel upwards of 600 MPH. Other examples include differing version of autonomous MagLev trains suspended above city streets; cable cars far above urban skylines; hybrid cars with wings; electric bikes, skateboards and other personal mobility devices; autonomous busses; even Falcon 9 Rockets to leverage the speed of space flight to get people around the globe quickly. Many of these are far into development and even wider implementation

The costs of transportation and motivation for change

The human population of Earth is growing and moving into urban areas exponentially. Travel on roadways designed 20, 50 or even over 100 years ago cannot sustain the demand for modern mobility needs. The result is traffic congestion on our roadways. Traffic inefficiencies cost the global economy hundreds of billions of dollars annually. Road, air, rail and marine transportation do not always operate as a seamless integrated network, contributing to further cost and delay.

Coupled with the current reliance on fossil fuels, transportation is a major contributor to greenhouse gas emissions, comprising 28.9% of total U.S. greenhouse gas emissions in 2017, according to the EPA. Greenhouse gases are a cause of climate change and pose a risk to human health and safety. The World Health Organization (WHO) has found that ambient air pollution resulting from vehicles, in addition to other sources, causes millions of premature deaths and disease around the world.Geotab GmbH is collaborating with Center Smart Services on the RWTH Aachen Campus in Germany to investigate air quality in Aachen. The Mobile AirQuality Measurement project aims to gather hyper-local air quality to support the optimization of traffic planning and management.

What will happen to today's transportation?

It is widely believed that the individual ownership of cars globally will decrease significantly over the coming decades. Currently, the U.S. has the highest concentration of cars per capita worldwide, with just over 800 cars per 1,000 people in 2014, higher than Canada, Europe and the Pacific. The European Union figure as of 2017 is 602 per 1,000 inhabitants. In Canada, a 2019 study by automotive data company Canadian Black Book reveals that 35% of Canadians aged 18-34 plan to reduce their household fleet over the next two years, and 41% of that same age group plan to do so in the next 10 years.

BY

18P31A0201,

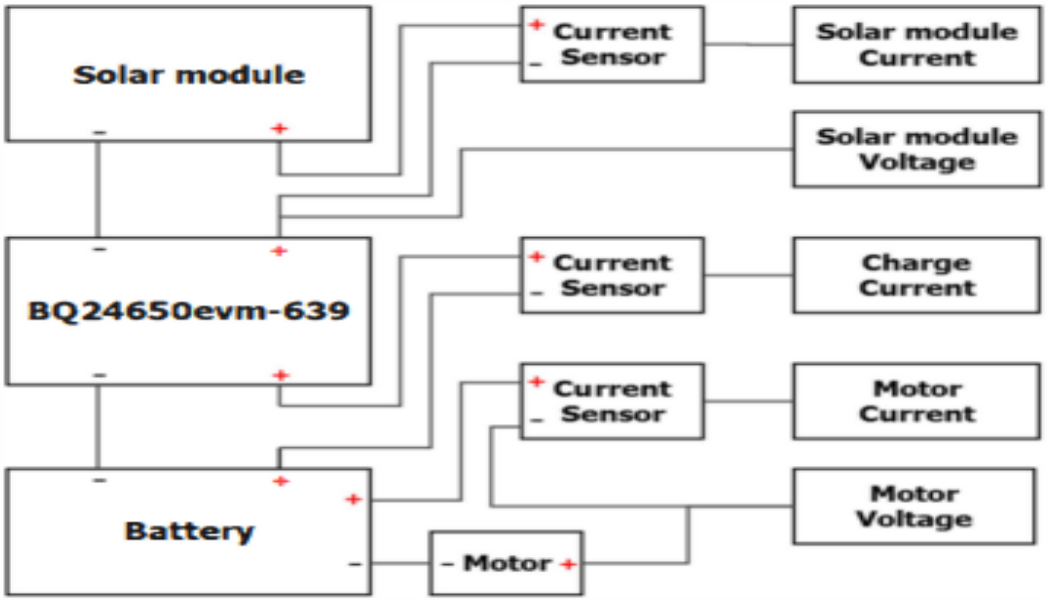
KUMAR NISHANT.

PROJECT IDEA

Flight Evaluation of Solar Powered Unmanned Flying Vehicle Using Ground Test bed

Abstract: Recently, unmanned aerial vehicles (UAVs) are applied to various fields, and the demand of UAV has also been increased. Achieving long endurance of a UA V is very important to perform a variety of tasks. A solar UA V is the one way for long endurance. However, there is damage or loss of solar UA V for the flight test. In this study, the ground testbed is designed for replicating flight motion of the solar powered unmanned flying vehicle (UFV) on the ground to minimize the practical constraints. The testbed evaluates the performance of the main parts such as solar module, MPPT, battery packs and verifies the feasibility of the long endurance flight. The evaluation system can monitor the energy flow by the measurement of the energy production and the consumption according to flight motion.

The demand of UAVs has been increased. Research and development of a UA V is actively conducting for science, civil and military purposes such as monitoring forest fires, border surveillance and so on. The long endurance of a UA V is very important aspect to achieve the tasks. One of the long endurance methods is using solar energy. Solar UA V gets the energy from the sun during the day and use the energy during a flight. And, surplus energy is stored in battery and it is used for night flight. In other words, if the obtained energy is much more than the consumed energy, the continuous flight can be achieved.



The flight testbed was introduced for evaluation of flight performance of UFV powered by solar energy. The experimental result of the obtained energy, the consumption energy and the battery state was compared with the simulation based on the developed model composed of the solar energy model and the flight model. Comparing the experiment and the simulation, we can see that the developed model can simulate the flight powered by solar energy exactly. Also the flight testbed was useful for performance evaluation of solar powered UFV s under the real weather condition.

BY
20P35A0249,
DEVINEDI SATISH.

LIMERICKS

Little Bo-Peep has lost her sheep,
And can't tell where to find them;
Leave them alone, and they'll come home,
Bringing their tails behind them.

Little Bo-Peep fell fast asleep,
And dreamt she heard them bleating;
But when she awoke, she found it a joke,
For they were still all fleeting.

Then up she took her little crook,
Determined for to find them;
She found them indeed, but it made her heart bleed,
For they'd left their tails behind them.

It happened one day, as Bo-Peep did stray
Into a meadow hard by,
There she espied their tails, side by side,
All hung on a tree to dry.

She heaved a sigh and wiped her eye,
And over the hillocks she raced;
And tried what she could, as a shepherdess should,
That each tail be properly placed.

JOKES

1. I just got my doctor's test results and I'm really upset about it. Turns out, I'm not gonna be a doctor.
2. My grief counsellor died. He was so good, I don't even care.
3. Today, I asked my phone "Siri, why am I still single?" and it activated the front camera.
4. As I get older, I remember all the people I lost along the way. Maybe my budding career as a tour guide was not the right choice.
5. I was digging in our garden and found a chest full of gold coins. I wanted to run straight home to tell my wife about it. Then I remembered why I was digging in our garden.
6. The doctor gave me some cream for my skin rash. He said I was a sight for psoriasis.
7. Don't challenge Death to a pillow fight. Unless you're prepared for the reaper cushions.
8. I don't have a carbon footprint. I just drive everywhere.

9. Even people who are good for nothing have the capacity to bring a smile to your face, like when you push them down the stairs

BY
20P31A0202,
ALLU VAMSI KRISHNA.

Vedic Indian Math Tricks

When the divisor is smaller and closer to the power of 10

(Nikhil am)

Step 1: Identify how much short the divisor is to the power of 10.

Step 2: Split the dividend into 2 parts – Quotient and Remainder. The number of digits considered as the remainder is the same as the number of digits in the divisor.

Step 3: Multiply the first digit of the quotient with the number obtained from step 1. Add this to the unit's digit of the quotient part (from step 2).

Step 4: Multiply the number obtained from step 3 with the number from step 1. Add this number to the Remainder part (from step 2).

Step 5: Now, we check if the remainder is greater than or equal to the divisor. If yes, divide it again and add the new quotient part to the quotient (from step 2). The remainder obtained now is the final remainder.

When the divisor is greater and closer to the power of 10

(Paravartya Sutra)

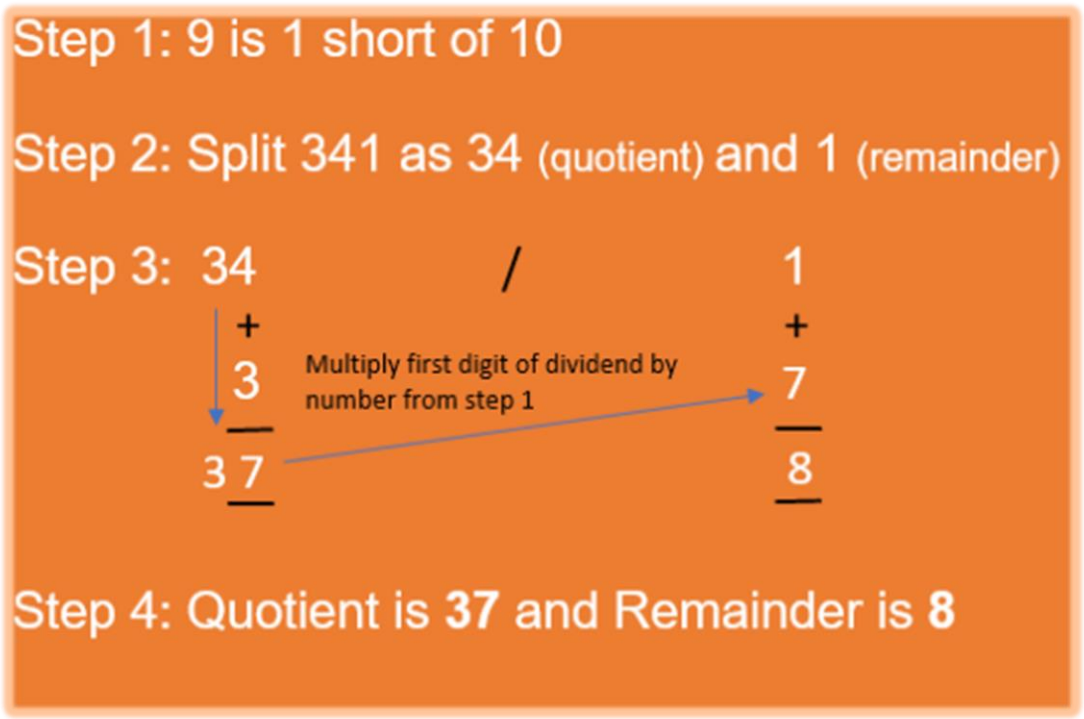
Step 1: Discard the first digit of the divisor and transpose the remaining digits of the divisor.

Step 2: Split divided into 2 parts – Quotient and Remainder. The remainder should have the same number of digits as obtained in step 1.

Step 3: Follow the same steps as Nikhil am

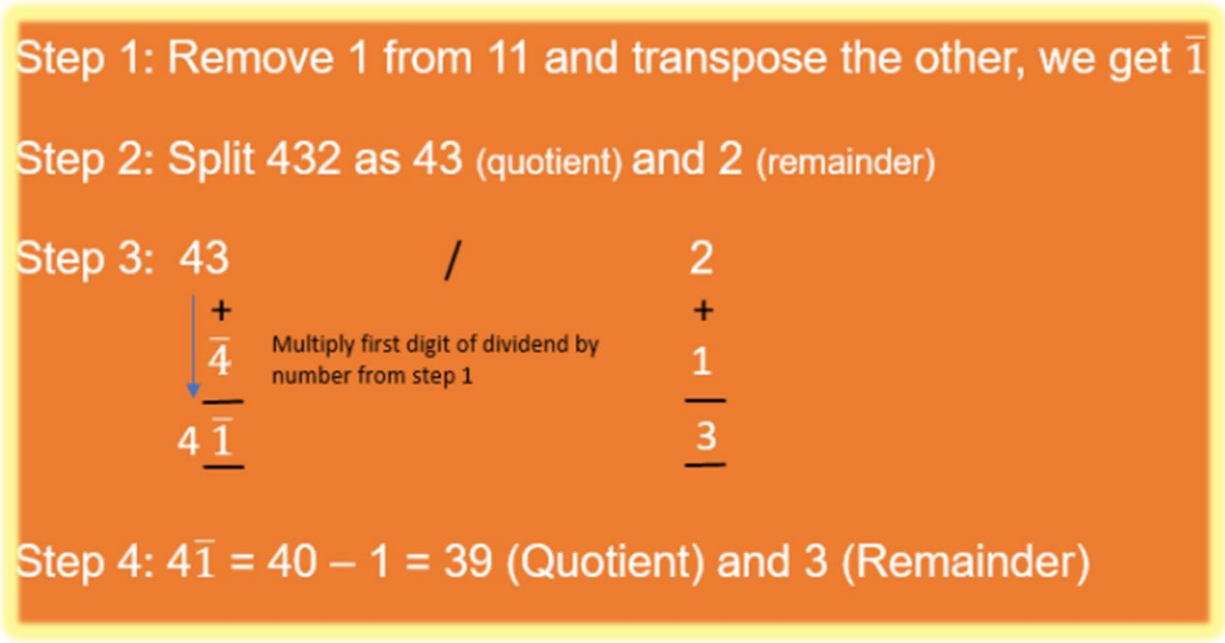
Let us see an example of Nikhilam

Divide 341 by 9



Let us see an example of Paravartya Sutra

432 divided by 11



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