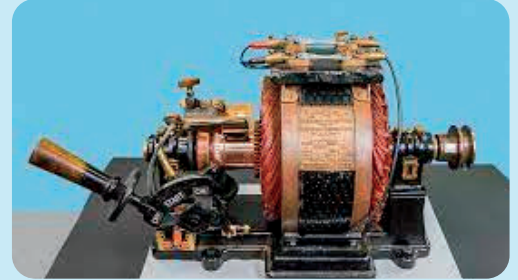


TECHNICAL



DO YOU KNOW ABOUT REPULSION MOTORS& THEIR WORKING?

Repulsion motor is a kind of electric motor used on alternating currents. It is classified under single phase each other, the repulsion forces are directly opposite to one another though it does not find many applications in this modern world, it is of historical interest. So let us take a detailed look at what repulsion motors really.



How do Repulsion Motors Work?

Repulsion motors work based on the theory of repulsion between 2 magnetic fields. Consider a salient pole motor (with 2 poles) with a magnetic axis that is vertical. An armature is connected to a brush and commutator where the brushes are short circuited with the help of a jumper having low resistance.

Now, an alternating current is supplied to the stator winding to induce an emf in the armature. This alternating current produces a South Pole at bottom and North Pole at top; the direction of the induced emf is opposite to this as per Lenz's law. The induced emf produces current in the armature conductors, the direction of which is based on the brush's direction.

Case 1: If the axis of the brush is parallel to the field's direction, the armature acts like an electromagnet, forming a North Pole directly at the bottom of the stator's N-pole and S-pole directly on top of the stator's S-pole. Since both the N-poles as well as both the S-poles repel another. Hence, the net torque in such a condition is zero.

Case 2: When the direction of the brushes is shifted 90 degrees, the magnetic axis and brush axis is perpendicular to each other. In such a condition, the coils experiencing short circuit also change.

The voltage produced in the other coil also gets neutralized. Since emf is not induced, there is no current and hence no net torque developed.

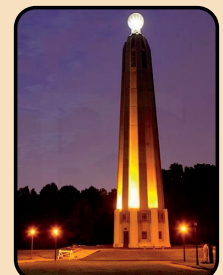
Case 3: When the brush axis is neither perpendicular nor parallel to the magnetic axis (displaced at an angle), a net voltage is induced thereby producing current in the armature due to which, a magnetic field is also generated. But here, the north and south poles don't come directly under respective fields.

So, in such a condition, the N-pole of main field and that of rotor field will repel each other, similar thing happens with the S-pole too. This rotates the rotor in a specific direction, which depends on the position of brush with reference to the magnetic field of stator or main magnetic field. The starting torque's value is decided by the brush shift amount (α) from the main magnetic axis. The maximum torque is obtained when $\alpha=45$ degrees. This is the basic working principle of repulsion motors.

contributor: BURLAGADDA SURYA VENU TEJA, Dept EEE

ELECTRICAL FACT

The world's biggest light bulb is located in Edison, New Jersey. It's 14 feet tall, weighs eight tons, and sits on top of the Thomas Edison Memorial Tower.





TEST YOURSELF



PROGRAM FOR THE MONTH

Write a python program for finding the factorial of a given number?

Factroal: the product of an integer and all the integers below it; e.g. factorial four (4!) is equal to 24.

contributor: RAKESH PEDIREDDI, Dept EEE

PROBLEM FOR THE MONTH

What are the Smart Grid Implementation Challenges in India?

A smart grid is an electricity network enabling a two-way flow of electricity and data with digital communications technology enabling to detect, react and pro-act to changes in usage and multiple issues. Smart grids have self-healing capabilities and enable electricity customers to become active participants.

- Power theft
- Inadequate Grid Infrastructure
- Low metering efficiency
- Lack of awareness
- Integration of Decentralized Renewable Power Generation

contributor: RAGHAVAPURAPU BHAVANI PRASAD, DEPT EEE

GENERAL KNOWLEGDE QUESTION

1. Where is the world's longest transmission line ?
2. QUAD stand for? Who are members of it and what it's an object ?
3. Which company launched an initiative named 'Students Club' for academic and extracurricular needs of students ?



AU ROUNDUP

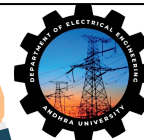


- AU in collaboration with "Valluri Technologies" to carry out trails on air pollution and measures to conserve it.
- Dr.Yesupadam garu at his own expense stepped in to make the campus environment clean and free from non-spirituous activities.
- We solve a youth club poster has been launched by All India Institute of Local Self Government by Rector K. Samatha garu to make people aware of problems in the society.
- Urdu Academy of Andhra Pradesh Chairman Nadeem Ahmed Garu visited Andhra university to meet Vice-chancellor Garu about Urdu P.G & Diploma courses.
- The representatives of IIT KHARAGPUR insight Andhra University to meet our Honourable Vice-Chancellor garu about the collaboration in process of education.
- Three days Faculty Development program held in the Andhra University to discuss teaching present technologies to students.
- Tremendous celebrations for The Foreign Farewell Party with the presence of vice-chancellor Acharya Prasad Reddy Garu of Andhra University.
- Well developed progress of AU INCUBATION Center detailed observation under vice-chancellor sir along with Architect Bheemesh Garu, Incubation center CEO Ravi Eswar Rao Garu.
- Registrar Acharya V Krishna Mohan Garu with his great presence, the selection of the AU Inter-University Men's Cricket Team has been conducted, and 120 participants from different colleges attended the selections.

contributor:CHEGIREDDY NITHIN KUMAR REDDY , Dept EEE



RESUME BUILDING



RESUME TIPS AND MISTAKES

Being an Engineering student, it may not be long before you will have to draft your first resume and appear for job interviews. Your resume must consist of a clear objective, and outline your qualifications, well-aligned with the job requirements. Following is a sample resume format that can be used while applying for graduate entry-level jobs, summer jobs, internships, etc.

Sample Resume Format <Name>

<Address>

<Email id>

<Mobile Number>

Positioning Statement

<..... Professional Experience

<12345>

Responsibilities and Results

<xyz Educational Background

<pqr. Technical Qualifications

<fgh.

Making mistakes in drafting a resume is not something uncommon. However, certain mistakes are regularly seen among a large number of resumes. If you feel that your resume is not working well for you, cross-check and see whether you are committing any of the following seven common resume mistakes: Seven resume tips/mistakes

1. Focusing too much on oneself rather than on the employer - Employers are often more interested in knowing what you can do for their company rather than in the kind of individual you are or what you have done in the past. Avoid focusing too much on yourself.

2. Starting with a career objective Never start your resume with a career objective. Rather, replace it with a positioning statement that concisely and clearly explains what you bring to the table. Hiring managers do not like looking at career objectives because they mostly focus on the job seeker's needs instead of the potential employer's requirements

3. Focusing only on responsibilities and not the results - You must never list out just your responsibilities in previous organizations or college without detailing all the results you achieved

while being given those responsibilities. Most employers would already know about your responsibilities, what they normally like to know is what all differentiate you from other applicants,



4. Not being specific enough - You will never get the job of your choice if you are not specific enough in your Resume. For example, mentioning merely that you contributed to product design, it will be much better to specify that you made changes to original design specifications, for which you received critical acclaim from fellow employees and the sale of over 5 million units.

5. Poor designing and improper layout-Almost 50% of your selection or short-listing chances are dependent on resume design. A hard-to-read, disorganized and badly laid out resume will be discarded by the reader straight away.

6. Adding unwanted and irrelevant details - Your resume must only provide the information necessary to get the desired position. It must never contain unrelated or unwanted data like personal experiences etc.

7. Not creating targeted and focused resumes - It is never the case of 'one size fits all' with resumes. Your resumes must be customized depending on the types of positions you are seeking.

contributor: Akarapu Bhanu Sri , Dept EEE

Any contributions/ feedback can be send to the_electric_times@andhrauniversity.edu.in



ARTS & STORIES



PHOTOGRAPHY



Shot by V.Sirisha
Brach:EEE
YEAR: 2nd year

Her father made her sit on his lap and explained. " Those three items were put under the same conditions. See how they've reacted differently. Potato turned soft, the egg turned hard and tea leaves changed the color and taste of water ." He further said," We are all like those three items. When adversity calls, we react exactly the way they do ." The little girl understood the concept and smiled at her dad.

Moral: One should learn to react and handle the situation in their life in the right way.

Writer: M.Thanusri
Brach:EEE
YEAR: 1st year

ART WORK



Art by K Krishna Priya
Brach:EEE
YEAR: 3rd year

POETRY



WHO R U

*You are not your age,
Nor your height (or) weight,
You are not your skin color,
You are not your large eyes,
You are not your long hair,
nor your dimple cheeks,
You are not a child nor a man,
You are the knowledge you gain,
You are the character you build,
You are the words you speak,
You are the smile on your face,
You are the confidence of yours
You are the future you dreamt,
You are the talent you build up,
Not only the beauty..!!!!*

Poetess: M. Sowmika
Brach: EEE
YEAR: 3rd-year AUCE(W)

STORY



Once upon a time, there lived an arrogant girl named Asha. One day her father wanted to teach her. So, he gave her three vessels filled with water. He placed an egg in the first one, a potato in the second one, and some tea leaves in the third one. He asked her to heat those three vessels and observe for ten to fifteen minutes and he also asked her to peel the potato and egg and strain the tea leaves after the said time. Asha left puzzled. She realized that her father is trying to say something but she couldn't get him. She asked her father out of curiosity but he just smiled. After fifteen minutes she peeled potato, and and and egg and strained the tea leaves, and took those to her dad.

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