

CONNECTOR

AKIRA FAMILY LETTER

Dear family members,

As the weather fluctuates between the scorching gaze of Surya Bhagavan and the compassionate glance of Varuna Bhagavan, we are delighted to release our 6th edition. In this edition, you will find technology-related news, eco-friendly tips, sports highlights, healthy food recommendations, short stories, and heartfelt greetings. We hope this edition provides you with a wonderful reading experience!

Our organizational theme

In ancient times, many carpenters were involved in the construction of a temple in a Gurukul. One day, a carpenter who was cutting a large log stopped halfway through the log to take a lunch break and left a wedge in the middle to keep the split open. At that time, a monkey among the group of monkeys that had arrived at the place, eager to pick up the wedge placed between the pieces of wood, tried to pick up the wedge by putting its foot and tail between the cracks in the wood. After a short struggle, the wedge came out, but the monkey got stuck in the tree and died.

When we fail to do what we are supposed to do, it ends up being a monkey business like this. The results of doing something without thinking, will not be beneficial to anyone. In Every situation, every Associates can only create a worthwhile result if they do what they are supposed to do. This is called Value Creation. Continuous learning is the only way to do what needs to be done in a given situation. Learning is an essential aspect of value creation. If there is no value in the work we do, it ends up being a monkey business. We can reform ourselves by asking ourselves, "Am I right?"



Why Celebrate Women's Day?

On March 8, 1917, thousands of Russian women protested in Petrograd (now St. Petersburg) against food shortages, World War I, and the oppression of women. Their protest, known as the "Bread and Peace" strike, played a key role in the Russian Revolution. Women gained the right to vote. To honor this event, March 8 was officially adopted as International Women's Day by socialist and communist movements. In 1977 The United Nations (UN) officially recognized March 8 as International Women's Day, making it a global celebration.

In this movement of celebrating International Women's Day on March 8th, we take a moment to honor and recognize the incredible women achievers in our country.



Indira Gandhi

India's first and only woman Prime Minister



Kalpana Chawla

The first Indian woman to travel to space



Mary Kom

The first Indian woman boxer to win an Olympic medal



Kiran Bedi

The first woman to join the Indian Police Service (IPS)



Falguni Nayar

Founder of Nykaa and India's first self-made woman billionaire

Celebrating the Journey



Sri Hariharan



Jayanthi S



Mahalakshmi S



Mohan K



Selvaganesh



Kalaiselvi K



Priya V



Kavin P



Sumithra



Sukanya B



Surendhar



Gnanashree

Congratulations...

Technical Tips

Phase Imbalance

If the 120° phase angle in a three-phase system changes to 117° or 124° , it indicates a phase imbalance.

Effects

1.Unbalanced Voltages and Currents

In a perfectly balanced three-phase system, the three voltages or currents are equal in magnitude and separated by exactly 120° . A shift to 117° or 124° means the phases are no longer symmetrically spaced, leading to different voltage and current magnitudes in each phase.

2.Unequal Line-to-Line Voltages

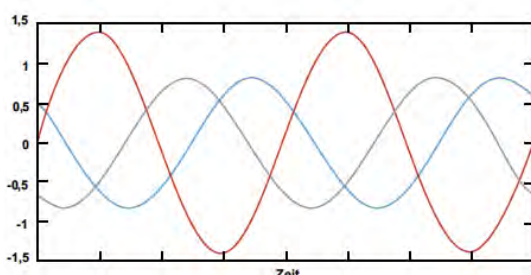
Normally, the line-to-line voltage is given by phase angle. If the phase angle is no longer exactly 120° , this relationship no longer holds, and the line-to-line voltages become unequal, leading to voltage imbalance.

3.Increased Neutral Current in a Wire System

In a balanced system, the three-phase currents cancel out at the neutral, meaning no current flows through the neutral. If the phase angles are shifted (117° or 124°), the cancellation no longer happens, and current starts flowing in the neutral conductor, causing heating and possible overloading.

4.Increased Harmonics and Power Losses

A phase angle imbalance causes harmonic distortion in the system. Motors and transformers experience additional losses, leading to overheating and reduced efficiency.



5.Uneven Torque Pulsations

Three-phase induction and synchronous motors rely on a balanced supply for smooth operation. A shift from 120° results in uneven torque, causing vibrations, noise, and potential damage to mechanical components.

6.Malfunction of Three-Phase Equipment

Equipment like rectifiers, inverters, and UPS systems depend on balanced phase voltages. Phase imbalance can cause them to trip, overheat, or fail prematurely.

Prevention methods

1. Maintain Load Balancing
2. Impedance Reduction
3. Use Active and Passive filters
4. Harmonic Reduction
5. Inspect and Maintain Electrical Connections
6. Check for Load Distribution Issues
7. Use a Phase Balancer or Autotransformer



Uma V



Sahaja



Nagaraj



Kavitha K



Kalaivani



Indira



Vasikaran

Wish you all the best

Health Tip

Metabolism is the fundamental process that occurs within our cells, transforming the nutrients from our food into energy. The higher the metabolic activity in our body, the greater the energy we receive. To enhance this vital energy conversion process, **Murungai** (Moringa) leaves, flowers, and fruits serve as powerful natural boosters.



An increase in metabolism not only enhances energy levels but also plays a crucial role in weight loss.

The proverb “Who plants the drumstick tree goes away empty-handed” carries a deep meaning about the incredible health benefits of the Murungai (Moringa) tree. It suggests that those who cultivate and consume its leaves, flowers, and fruits regularly will not suffer from diseases.



Wish you all the best
A fresh accounting year brings
new challenges, new opportunities,
and new successes...
let's embrace it with strategy
and confidence. 2025-2026

World Water Day - March 22nd

Innovative Water Concepts & Technologies

1. Atmospheric Water Harvesting
Extracts water from air using solar-powered devices.
2. Graphene-Based Desalination
Uses graphene membranes for energy-efficient seawater purification.
3. Smart Water Management (AI & IoT)
AI-driven leak detection, smart irrigation, and real-time water monitoring.
4. Fog Harvesting
Captures water droplets from fog using mesh collectors in dry regions.
5. Floating Solar Water Purifiers
Solar-powered devices that purify water and prevent evaporation.
6. Circular Water Economy
Advanced wastewater recycling for reuse in drinking and agriculture.
7. 3D-Printed Water Filters
Low-cost, Nano-material-based filters for effective water purification.
8. Water-Powered Batteries
Micro-hydro turbines generating electricity from flowing water.
9. Artificial Glaciers (Ice Stupas)
Man-made glaciers storing water for gradual release in dry seasons.
10. Self-Filling Water Bottles
Bottles that collect and condense humidity from the air.



**Wishing you a happy & Prosperous
Tamil New year. Apr 14, 2025**



Did You Know?

**The First Electric Car Was Built in 1837
Long Before Gasoline Cars Became Popular!**



The Birth of the Electric Vehicle (EV)

While most people associate electric cars with modern Tesla models or hybrids like the Prius, the truth is that electric vehicles (EVs) predate gasoline-powered cars by decades!

1832-1839: Scottish inventor Robert Anderson developed the first crude electric carriage, powered by non-rechargeable primary cells.

1837: Chemist Robert Davidson of Scotland built a more advanced electric-powered locomotive, demonstrating that electricity could propel vehicles.

1859: The invention of the lead-acid battery by French physicist Gaston Planté made rechargeable electric vehicles feasible.

1884: English inventor Thomas Parker (who also electrified the London Underground) built one of the first practical electric cars using rechargeable batteries.