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BATTERY DIRECTORY & YEAR BOOK

Uniting Small Scale Battery Industry 40 years of Publication 1985 - 2025

Contents on page no. 10

FORTNIGHTLY ISSUE
1-15 December 2025
(Vol.40, No.23 Published on 31.12.2025)

20th POWERON INDIA AHMEDABAD 23-24-25 January 2026

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Elongation (CMD) (%) - 175

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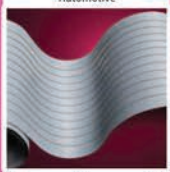
Ultra High Molecular Weight Polyethylene (UHMWPE) Automotive



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- Motorcycles
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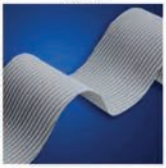

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Key Applications
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- Material handling equipment
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- Mining

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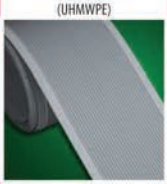

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Key Deep Cycle Applications
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- Floor machine
- RV
- Marine

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Rubber Separator

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Key Applications
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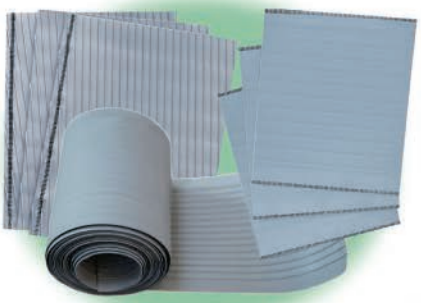

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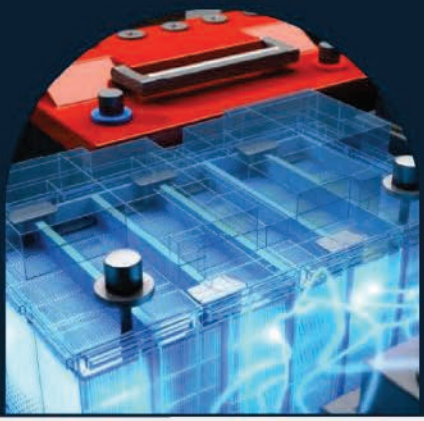
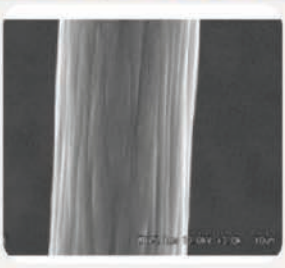


PP

PE



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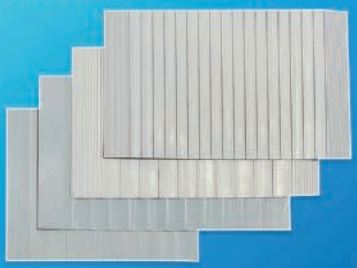
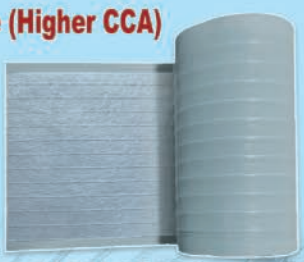
PE(0.7~1.3mm)+GM(0.3~0.6mm)



Thickness PE 0.6~1.7mm

Automotive (Higher CCA)



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—Bhagwan Sh. Sathya Sai Baba

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FEDERATION & ASSOCIATION NEWS

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ILZDA's International Conference on Lead and Lead Batteries Concludes

Asian Battery Conference Chairman Mr. Mark Stevenson Honored with 'Battery Ratna' Award

The International Conference on Lead and Lead Batteries, organized by the **India Lead & Zinc Development Association (ILZDA)**, was attended by 200 delegates from India and abroad. The conference was held on December 1st and 2nd at the India International Centre, New Delhi. The main objective of the event was to discuss the role and opportunities of Lead Batteries in emerging sectors such as energy storage, electric mobility, and environmental protection.

Technical Sessions

Several technical presentations were given by Indian and International experts, these covered topics such as advanced lead battery development, the use of nanocarbon and nano-oxides, market trends, and sustainability.

Formation of a Technical Committee

A significant outcome of the conference was the decision to form a technical committee. This committee will comprise representatives from battery manufacturers and recycling units, ensuring energy-efficient and "green recycling" of lead-acid batteries.

Elimination of Informal Recycling

The delegates agreed that informal recycling operations should be phased out as soon as possible and replaced by formal units with the active participation of manufacturers and consumers.

Cont. on page no.: 14 →

Address by Sh. Harashpal Singh Sawhney, President of the Federation, at the International Conference on Lead and Lead Batteries organized by ILZDA

Lead Batteries will continue to play a Major Role

– Sh.Harashpal Singh Sawhney –

I am truly honored to be here today at this important gathering of global leaders, innovators, and stakeholders in the battery, recycling, and energy storage ecosystem.

To begin, I would like to thank ILZDA's **Sh. L. Pugazhenthy** and the esteemed organizers for inviting me as the Guest of Honor.

Our industry stands at a critical juncture. With the rapid growth in electric mobility, renewable integration, and energy security goals, the role of batteries – particularly lead-based energy storage – remains crucial to India's infrastructure and economic progress.

As the President of the Federation of Indian Small Scale Battery Associations, I represent thousands of MSMEs that form the backbone of this sector. These small-scale manufacturers, recyclers, and service providers not only contribute to job creation but also to India's circular economy through the efficient recovery and reuse of lead. Their entrepreneurship and technological innovation are invaluable.

However, we also face certain challenges that require collective attention.

Firstly, sustainability and responsible recycling must be at the heart of every policy and practice. India has made significant progress, yet there is ample scope to further formalize and strengthen the recycling ecosystem. We must ensure that environmentally sound processes become the norm across the country.

Secondly, MSMEs require robust support in terms of access to technology, compliance frameworks, and capacity building. Empowering the small-scale sector with modern tools, simplified regulations, and collaborative platforms can drive transformative change at the grassroots level.

Thirdly, the future of the battery industry will be multi-chemistry – encompassing lead-acid, lithium-ion, and emerging materials. Rather than viewing this as competition, we should see it as an opportunity to collaborate, diversify, and evolve. Lead-acid batteries will continue to play a crucial role due to their recyclability, cost-

effectiveness, and reliability. However, we must be prepared for a hybrid ecosystem where both traditional and new chemistries coexist.

What makes me optimistic is the immense knowledge, expertise, and enthusiasm we all possess. Forums like this – where global perspectives meet Indian realities – are essential for shaping a responsible and future-ready industry. I look forward to meaningful discussions today and to working together to strengthen the industry, support MSMEs, and promote sustainable growth.

Thank you once again for this opportunity. I wish the conference great success. ❑

ILZDA's International Conference

Cont. from page no.: 12 →

'Battery Ratna' Award

Mr. Mark Stevenson, Technical Director of Global Lead Technologies and Chairman of the Asian Battery Conference, was awarded the 'Battery Ratna' award for his outstanding contributions to the global lead battery industry.

This event underscored the importance of collaboration, innovation, and responsible recycling for future energy and mobility solutions. ❑

Use WhatsApp and Arattai App for Messages

WhatsApp service is available on Battery Directory's mobile number 9971150801. You can send your message there.

You can exchange messages via the Arattai App on mobile number 9810268067.

We hope that the indigenous Arattai App will not be blocked repeatedly and that the data will remain secure within the country.

Chandra Mohan: 9810268067

Thailand Energy Storage Technology Association to Collaborate with Indian Battery Federation

As part of its campaign to enhance cooperation and interaction with battery organizations in other countries at the international level, officials from the Federation of Indian Small Scale Battery Associations met with representatives of the Thai battery industry organization, the Thailand Energy Storage Technology Association, at the association's office near Bangkok on December 18.

The Indian delegation included **General Secretary Sh. Naresh Tomar**, along with **Arvind Mohan**, and **Sh. Naresh Suneja**, **President**, and **Sh. Yugal Kishore**, Secretary, of the **Ghaziabad Lead and Battery Manufacturers Association**. Representing the Thai battery association were **President Ms. Pimpa Limthongkul**, **Vice President Ms. Nonglak Meethong**, Head of Awareness and Knowledge Dissemination **Ms. Ratiparn Manaparn**, and WG3 Battery Safety Promotion Department Head **Mr. Yosapong Laonuan**.

The meeting focused on mutual coordination and exchange of information between the two organizations. Ms. Pimpa explained that their organization is collaborating with the Thai government to establish standards in line with the zero-emission target for environmental protection. The use of electric vehicles is rapidly increasing in Thailand.

She also invited the Indian Federation to the next meeting of the ASEAN battery industry. ASEAN (Association of Southeast Asian Nations) is a major political and economic bloc of ten Southeast Asian countries (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam).

The Federation's General Secretary, Sh. Naresh Tomar, accepted the invitation and extended an invitation to the Thai representatives to attend the proposed Battery Expo Power On and the Federation's meeting in January as special guests.

It was decided at the meeting that both organizations would remain in constant contact and share the latest information on batteries. ❑

Managed by Mr. Hansraj Agarwal of High Tech Insulators Pvt. Ltd.

'Amrit Niwala' Served about 2.1 Million People

In 2022, during the COVID-19 pandemic, food availability was a major problem for people, especially those who were unemployed. **Sh. Hansraj Agarwal** of High Tech Insulators Pvt. Ltd., Jaipur, established a community kitchen in Bhagirath Vihar on Sikar Road to provide clean and sufficient food to the needy. He started the kitchen in a 10,000 square feet area and named it **'Amrit Niwala'**.

This kitchen provides food service to the general public. Its unique feature is that it is based on hygienic technology. Complete attention is paid to purity and nutritional value. Vegetables are cleaned using machines with ozone rays to remove pesticides. Food is cooked using automated machinery. Sh. Hansraj Agarwal stated that more than 2.1 million people have eaten at this kitchen in the last 45 months. Approximately 1500-1800 people eat here daily. Initially, food was provided free of charge for over a year, but due to excessive food wastage, a nominal charge of 10 rupees was introduced. This significantly reduced food wastage. The number of working professionals, students, and middle-class people visiting the kitchen also increased. This 10-rupee charge is not mandatory; those who cannot pay are still provided with food. His family celebrates birthdays and anniversaries at this kitchen. His

Cont. on page no.: 23 →

Federation of Indian Small Scale Associations Appeals to the Government and Members of Parliament

To Revoke the Provision Making Lithium Batteries Mandatory in the Draft Notification

The **Federation of Indian Small Scale Battery Associations** has expressed its opposition to the mandatory use of only lithium batteries in e-rickshaws from April 1, 2027, and has sent a letter to several ministers and Members of Parliament, including the **Hon'ble Minister, Ministry of New and Renewable Energy, Shri Prahlad Joshi**. This letter has been published in Battery Directory, Issue 20 (in Hindi) and Issue 21 (in English), on pages 12 to 17. Along with this letter, certain facts have been presented to clearly highlight the disadvantages of lithium batteries and the advantages of lead-acid batteries to the government. These facts are presented here:

Lifecycle Assessment (LCA) Comparison: Lead-Acid vs. Lithium-Ion Batteries

1. Objective and Scope

A cradle-to-grave Lifecycle Assessment (LCA) comparing the chemistry of lead-acid and lithium-ion batteries is presented, including:

- Greenhouse gas (GHG) emissions
- Resource extraction intensity
- Water consumption
- Energy use
- Toxicity and safety
- End-of-life circularity
- Waste management burden.

The lifecycle assessment follows internationally accepted frameworks used by:

- EU Battery Regulation (2023)
- ICCT
- World Bank Critical Minerals Reports
- International Lead Association (ILA)
- Leading global LCA publications

The results reflect the Indian context wherever possible.

2. System Boundaries

The lifecycle assessment evaluates all six sequential stages of the battery lifecycle:

1. Raw material extraction
2. Material refining and processing
3. Battery manufacturing and assembly
4. Transport and distribution
5. Use phase
6. End-of-life processing (recycling/ disposal)

The environmental impact is assessed per 1 kWh of battery energy storage capacity.

3. LCA Summary - Key Comparative Findings

Table 1 - Cradle-to-Grave Comparison

Parameters	Lead-acid battery	Lithium-ion battery (LFP/NMC)
Recycling rate (global)	96-99%	20-30%
Recycling rate (India)	Through the formal sector >90%	informally <5%; mostly informal/poorly managed.
Manufacturing emissions (CO_2e)	170-250 kg CO_2e/kWh	280-500+ kg CO_2e/kWh
Intensity of raw material mining	Very low (mostly recycled lead)	Very high (lithium, cobalt, nickel mining)
Water consumption	Low	Extremely high (up to 1.9 million liters/ton of lithium)
Energy intensity	1.0-1.5 MJ/Wh	2.0-3.5 MJ/Wh
Fire/thermal runaway risk	Zero	High at 150-180°C
Circularity Index	>95%	<20%
Toxicity potential	Safe in controlled systems	HF gas is released upon combustion; toxic solvents

Conclusion

Lead Batteries demonstrate superior life cycle environmental performance across every major LCA category due to:

- Use of recycled materials
- Reduced reliance on mining
- Complete circularity
- Less waste compared to other technologies
- No risk of fire or thermal runaway

Lithium-ion Batteries have significantly higher upstream emissions, greater mining impact, and poor end-of-life recovery.

4. Step-by-Step LCA Analysis

4.1 Raw Material Extraction

Lead-acid

- 80-85% of the lead used in India comes from recycled sources.
- New mining is required for <20%.
- Energy consumption and emissions from mining per kWh are very low.

Environmental stress level: Very low.

Lithium-ion

Requires the extraction of:

- Lithium (by evaporating brine or

through hard rock mining).

• Cobalt (primarily from the DRC).

• Nickel (high-temperature smelting).

• Graphite (by calcining with HF acid).

Impact:

• High GHG emissions

• Severe water scarcity (especially in the Atacama Desert)

• Toxic waste and land degradation

• Well-documented concerns regarding human rights and child labor in cobalt mining

Environmental stress level: Very high.

4.2 Material Refining and Processing

Lead-acid

• Lead recycling is energy-efficient

• Plastics and electrolyte are reprocessed

• No hazardous chemicals.

CO_2e Impact: Low to Medium

Lithium-ion

• Kilns at 700-1000°C

• Toxic solvent NMP

• Multiple purification cycles

• High-level chemical processing

CO_2e Impact: Very High

4.3 Manufacturing Emissions

Lead-Acid

Typical Processes:

• Grid casting

• Pasting and curing

• Manufacturing in aqueous electrolyte

Manufacturing Emissions:

170-250 kg CO_2e/kWh

Lithium-ion

Requirements:

• Ultra-dry rooms (dew point -40°C)

• High-temperature drying

• Solvent recovery systems

Manufacturing Emissions:

280-500+ kg CO_2e/kWh

4.4 In-Use Performance and Safety

Lead-Acid

• No thermal runaway

• Non-flammable

• Reliable performance even at high temperatures

• Materials can be recycled indefinitely.

Lithium-ion

• Rapid degradation above 45°C

• Risk of fire and explosion

• HF gas released during runaway events

• Embedded carbon cannot be recovered

4.5 End-of-Life Processing

Lead-Acid (Closed-Loop Circular System)

• 96-99% recycling rate

• Lead can be recycled indefinitely

• Plastics and electrolyte are recovered

• Thousands of authorized recyclers in India

रजिस्ट्री सं. डी.एल.- 33004/99 REGD. No. D. L.-33004/99

भारत का राजपत्र
The Gazette of India

10. In the said rules, after rule 125-Q, the following rule shall be inserted namely:-

4 THE GAZETTE OF INDIA : EXTRAORDINARY [PART II—SEC. 3(i)]

"125-R. Specific requirements for E-Rickshaw and E-carts. - On and after 1st April 2026, all manufacturers of E-rickshaw and E-cart, as part of the type approval procedure, shall undergo an audit of their manufacturing facilities and process, to establish quality control. The audit shall be done by the test agency, undertaking the type approval process of E-rickshaw and E-cart.

Provided that for a manufacturer possessing a valid IATF certification or equivalent, the scope of audit shall be limited to document verification only.

(2) All e-rickshaw/e-carts manufactured on or after 1st April, 2027, shall be fitted with lithium ion battery packs and performance requirement of the same shall be as per AIS-156 (Part 1) and (Part 2), as amended from time to time.

• No landfill waste

Lithium-ion (India not yet circular)

• <5% formally recycled

• No nationwide collection system

• Informal dismantling is unsafe

• High risk of fires in scrap yards

• Low material recovery.

5. LCA Verdict

Lead-acid batteries:

• Inherently safer.

• Significantly lower lifecycle emissions.

• Made from recyclable materials.

• Circular by design.

• Supports domestic industry and jobs.

Lithium-ion batteries:

• Very high carbon footprint.

• Pose future e-waste challenges.

• Risk of thermal runaway.

• Limited circularity and high upstream impact.

❑

Which is better? Lead Battery or Lithium-ion Battery

1. Objective

The objective is to analyze the scale, causes, and consequences of the rapidly growing problem of lithium-ion battery waste in India, driven by the increase in:

- Electric Vehicles (EVs)
- Solar/Storage Systems
- Consumer Electronics.

2. India's Current E-waste Situation

- India generates ~1.6 million tons of e-waste annually.
- Only 33% of this is formally collected.
- 67% ends up in the informal sector, landfills, or open burning.
- Lithium-ion batteries currently constitute a small but rapidly growing portion.

As EV adoption increases, lithium-ion waste in India is projected to increase 6-8 times in the next 10 years (ICRA 2023).

3. Why is Lithium-ion E-waste More Dangerous?

3.1 Fire Hazard

Discarded lithium packs can undergo thermal runaway, leading to:

- Landfill fires
- Apartment fires
- Scrap yard explosions
- Toxic fumes

These fires are difficult to extinguish; water exacerbates the reaction.

3.2 Toxic Emissions

Burning lithium-ion batteries releases gases such as:

- Hydrogen fluoride (HF)
- POF3
- Dioxins and VOCs
- Metal oxide fumes

HF is lethal even in small quantities and causes severe damage to the lungs, eyes, and tissues.

3.3 Soil and Groundwater Contamination

Improper disposal of lithium batteries leads to the leaching of chemicals such as:

- Lithium salts
- Cobalt
- Nickel
- Manganese
- Fluoride

These accumulate in crops and enter the food chain.

3.4 Impact on Human Health

Informal workers, often including children, are exposed to:

- Acids
- Fine toxic particles
- Heavy metals
- Solvent fumes

This results in the following adverse

health consequences:

- Neurological damage
- Kidney failure
- Respiratory illnesses
- Cancer

3.5 Loss of Critical Minerals

India imports:

- 100% of its lithium
- 100% of its cobalt
- 96% of its nickel
- 100% of its natural graphite

Landfilling these materials results in the permanent loss of these minerals from the earth.

4. Why this is not the case with Lead-Acid Batteries

- Lead-acid batteries have a formal buyback system,
- India already has a closed-loop recycling ecosystem in place,
- Lead, plastic, and electrolyte are fully recoverable,
- Regulatory compliance is enforced through BWM rules.

Therefore, lead-acid batteries do not contribute to uncontrolled e-waste.

5. Conclusion - A Major National Risk

Unless India rapidly expands its lithium battery EPR, standards, and recycling infrastructure, the country will face these problems:

- Massive toxic waste
- Severe public health impacts
- Increased fire incidents
- High remediation costs
- Loss of valuable minerals
- Damage to the credibility of the EV program

In contrast, lead-acid batteries do not pose any of these end-of-life risks.

Battery Governance Reforms: EPR, GST RCM, and Formalization of the Sector

1. Battery Waste Management Rules (2022-2025)

These rules include:

- Extended Producer Responsibility
- Mandatory collection and recycling
- CPCB digital tracking
- Environmental compensation for violations
- Ban on improper disposal or incineration
- Recycling standards and SOPs

This framework has formalized lead-acid recycling across the country.

2. GST Reverse Charge Mechanism (RCM) (2024)

RCM applies to metal scrap, including lead scrap:

- GST liability shifts to the buyer,
- Informal operators cannot issue GST invoices,

• Eliminates the tax arbitrage historically enjoyed by illegal scrap yards,

• Supported by 2% TDS provisions.

Result:

• Significant reduction in illegal recycling

• Formal recycling strengthened

• Lead-acid circularity is now fully traceable.

3. Why is this important?

The government has already established:

• The world's best recycling framework,

• A circular battery ecosystem in India,

• A regulatory system that rewards compliance.

Therefore, banning lead-acid batteries goes against:

• Domestic manufacturing policy

• Circular economy goals

• Environmental protection

• Protection of MSMEs

• Make in India and Atmanirbhar Bharat (Self-Reliant India) initiatives. ❑

'Amrit Niwala' Kitchen...

Cont. from page no.: 16 →

ancestors migrated from Jhunjhunu, Rajasthan, and settled in Jharkhand. He came from Jamshedpur in 1992 and started an industry in Jaipur. He established a factory in the Jaitpura industrial area that manufactures defense insulation products for the Indian Army. These products are used in army radar systems. He is the first entrepreneur in the state to manufacture such products. ❑

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9810268067, 9910699538, 9821888067, 9971150801, 9971150802

We don't have any other numbers besides these numbers.

Federation has sent Suggestions to the CPCB for the Development of a Common EPR Portal

The Federation of Indian Small Scale Battery Associations (FISSBA) has sent suggestions to the Central Pollution Control Board (CPCB), appreciating their efforts to improve the EPR portal.

The CPCB had sought suggestions from stakeholders on December 12th to improve the EPR portal. The Federation has sent these suggestions based on the experiences of battery manufacturers and recyclers across the country. For easy understanding, the difficulties, problems encountered, and suggested improvements are presented in the table below.

Issue	Problem Faced by Users	Suggested Improvement
No clarity on registration fee for new producers without previous-year turnover	New producers do not have previous year turnover and do not know what registration fee to pay	Provide clear fee method for new producers, such as minimum or provisional fee
Difficulty in adding new battery type after producer registration	Producers face delays and confusion when adding new battery types	Provide simple option to add battery type without full re-registration
Lack of post-registration guidance for producers	Producers assume compliance is complete, there obligations if any will auto generate and thus remain un attended; risk of non-compliance	Provide step-by-step guidance, manuals, videos, and system alerts
EPR obligation shows “zero” after registration	Producers wrongly assume they have no EPR obligation	Show clear system message explaining obligation generation
Recycler registration pending for long time at State level	Applications remain “under process” with no reason or timeline	Fix time limits and escalation system for State approvals

Recycler application stuck due to State query	If query is not resolved, application remains pending indefinitely	Provide clear resubmission and escalation process
No clarity on type of annual returns required from recyclers	Different States ask for different returns	CPCB to issue uniform instruction on acceptable annual returns
New recyclers cannot submit last 3 years returns	New recyclers get stuck and cannot complete registration	Allow self-declaration (in a prescribed format) for new recyclers
Missing battery types while recycler uploads data	Recyclers cannot upload correct data due to missing options	Provide complete and standard battery type list
No option to correct wrong data uploaded by recycler	Mistakes cannot be corrected once data is submitted	Allow edit/correction option
Portal timeouts and upload errors	Data loss and repeated work for users	Improve portal stability and add save draft option
No complaint or grievance tracking system	Users cannot track status of their complaints	Introduce easy online ticket system with tracking number
Difficulty in selecting producer while recycler uploads data	Recycler has to manually search a long, unorganised list of registered producers	Provide search, filter, and auto-suggest options (GSTIN/name-based)
No clarity on "Factory Waste" data and credit generation	Recyclers upload factory waste data but credits are not generated; producers demand credits	Clearly define what is factory waste, eligibility for credits, and material recovery percentage range
Login captcha not clear and multiple authentication steps	Users struggle with unclear captcha and repeated attempts, followed by OTP, making login difficult	Use only mobile OTP login like banks, or improve/remove captcha

❑

Life is a challenge, meet it!
Life is a dream, realize it!
Life is a game, play it!
Life is love, enjoy it!

Changes in Battery, Lead & Aluminium Recycling Methods

– Gravita India Ltd., Jaipur –

India is witnessing a significant shift in its waste management, resource management, and industrial sustainability practices. With the increasing demand for batteries, Aluminium, and lead in sectors such as automotive, manufacturing, electronics, and renewable energy, the country urgently needs to mitigate resource depletion and responsibly manage hazardous waste.

This is where the circular economy has emerged as a revolutionary model, transforming how materials are recycled and reused in India. Unlike the traditional linear 'take, make, dispose' model, the circular economy focuses on keeping materials in use for as long as possible, minimizing environmental impact and strengthening the economy. For industries dealing with batteries, lead, and Aluminium, circular practices are reshaping operations, improving recycling efficiency, and creating value from waste.

1. Understanding the Circular Economy in the Recycling Sector

The circular economy adheres to three main principles:

Designing out waste and pollution: Products are designed for durability, easy disassembly, and safe recycling.

Keeping materials in use: Through repair, reuse, remanufacturing, and recycling.

Regenerating natural systems: Ensuring environmental protection and resource conservation.

For India's highly resource-intensive sectors like the battery, lead, and Aluminium industries, adopting circularity is not only beneficial but also essential for sustainable development.

2. Circular Economy in Battery Recycling

The electric vehicle revolution and the growing demand for electronics in India have led to tremendous growth in the battery market. This also means a significant increase in used batteries containing lithium, lead, nickel, and other valuable materials. How Circular Systems are Transforming Battery Recycling

Efficient Material Recovery

Modern hydrometallurgical and pyrometallurgical techniques help recover up to 90-95% of materials like lithium, cobalt, nickel, and lead.

Second-Life Batteries

Electric vehicle batteries unsuitable for vehicles can be used for:

- Energy storage
- Power backup
- Solar storage systems

Reduced Dependence on Imports

Recycling metals domestically reduces India's reliance on imported raw materials.

Safer Waste Management

Circular systems minimize the leakage and pollution from hazardous waste, particularly from informal recycling sectors.

3. Circular Economy in Lead Recycling

Lead is one of the most recycled materials in India, especially from used lead-acid batteries (ULABs). The circular economy has significantly improved the efficiency and safety of this process.

Key Transformations in Lead Recycling

Closed-loop recycling: Lead is extracted from old batteries and used to manufacture new batteries, creating a completely closed circular loop.

Shift towards formal recycling units: Government regulations and producer responsibility models are encouraging industries to move away from unsafe, informal metal smelting processes.

Energy-efficient smelting processes: Advanced furnaces reduce emissions and energy consumption during lead recovery.

High recovery rates: Lead is almost 100% recyclable, making it ideal for circular applications.

4. Circular Economy in Aluminium Recycling

Aluminium is one of the most sustainable metals; its recycling uses up to 95% less energy compared to primary production. India's industrial, packaging, and automotive sectors are heavily reliant on Aluminium, making the circular process extremely important.

How do circular practices improve Aluminium recycling?

Unlimited recyclability: Aluminium can be recycled repeatedly without losing quality, supporting long-term circular cycles.

Environmentally friendly manufacturing: Using recycled Aluminium significantly reduces carbon

emissions.

Resource conservation: Circular models reduce bauxite mining, protecting ecosystems.

Growth in the secondary Aluminium market: Due to increased scrap collection and advanced recycling technology, secondary Aluminium production in India is expanding rapidly.

5. The Role of EPR (Extended Producer Responsibility) in Promoting Circularity

India's EPR regulations for batteries, e-waste, plastics, and metals ensure that manufacturers take responsibility for managing their products at the end of their life cycle.

For the battery, lead, and Aluminium sectors, EPR mandates:

• Establishment of formal collection channels

• Ensuring safe disposal and recycling

• Meeting annual recycling/ collection targets

• Using certified recyclers

• Maintaining transparent documentation

This has accelerated the transition towards a regulated, traceable, and circular recycling system.

6. Environmental and Economic Benefits of Circular Recycling

Environmental Benefits

• Reduction in landfill waste

• Reduced carbon emissions

• Less reliance on mining

• Safe management of hazardous materials

• Conservation of natural resources

Economic Benefits

• Reduced production costs through material recovery

• Reduced import dependence

• Job creation in recycling and waste management

• Strengthening local manufacturing

7. The Future of the Circular Economy in India's Recycling Sector

India is rapidly moving towards sustainable resource management. In the future, we will see:

• Advanced battery recycling technologies

• AI and IoT-based material sorting

• Development of formal recycling clusters

• Further strengthening of EPR enforcement

• Increased research in material recovery

• Universal adoption of closed-loop recycling systems

With growing environmental awareness and government support, circular economy practices will define the next era of battery, lead, and Aluminium recycling in India.

Circular economy practices are revolutionizing the way India manages battery, lead, and Aluminium waste. By developing better systems, encouraging recycling, and keeping materials in continuous circulation, India is not only

EV Registrations Cross 2 Million in 2025

This year, the demand for battery-powered electric vehicles has reached new heights. For the first time, EV registrations across all segments have crossed 2 million units, with a month still remaining in the year. This record reflects growing consumer interest, improved product availability, and continued government support.

Strong Demand Persists

Despite policy changes, the demand for EVs remains strong. The main reasons for this are:

1. Continuous decline in battery prices
2. Expansion of the charging network
3. New models with longer range and faster charging

According to industry sources, the availability of motor magnets is currently under control. Localization and lower battery costs are mitigating the associated pressures. Electric two-wheelers remain the biggest driver of EV registrations.

According to the Vahan portal, electric two-wheelers account for 57 percent of EV registrations this year. 1.16 million electric two-wheelers have been sold so far in 2025. This number is even higher than the total sales for the entire year of 2024 (1.15 million). ❑

minimizing environmental impact but also fostering economic growth.

From improved recycling techniques to EPR-based compliance, this transformation is already underway, positioning India for a cleaner, more resource-efficient future. ❑

Love lives by giving and forgiving.

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Boosting Lead-Acid Battery Performance with Cancrie Nanocarbon

– Cancrie Pvt. Ltd. –

Jaipur

Lead-acid batteries have long been a staple in various applications like inverters, solar energy systems, SLI (starting, lighting, ignition), and start-stop vehicles. However, one challenge remains pervasive — improving charge efficiency and extending battery life. This is where Cancrie Nanocarbon comes into play. This innovative additive is designed to enhance the performance of lead-acid batteries through simple addition to the negative active material (NAM), enabling manufacturers to meet rising energy demands while adhering to eco-conscious principles.

What Does Cancrie Nanocarbon Do?

Cancrie Nanocarbon acts as a smart additive that significantly improves multiple aspects of lead-acid battery performance. It addresses three fundamental issues:

Improves Charge Acceptance

One of the primary benefits of Cancrie Nanocarbon is its ability to enhance electrochemical reaction kinetics at the negative plate. This leads to a remarkable 25% increase in charge acceptance. For applications reliant on solar and inverter systems, this efficiency is particularly valuable. By allowing faster and more efficient charging, Cancrie Nanocarbon ensures that energy is utilized optimally, thus contributing to the overall sustainability of energy systems.

Cancrie Nanocarbon can significantly enhance lead-acid battery performance.

Increases Lifecycle

A critical factor in the longevity of lead-acid batteries is the prevention of permanent sulfation. This issue is one of the leading causes of premature battery degradation. Cancrie Nanocarbon actively helps to reduce this problem by promoting healthier charge and discharge cycles. In typical use cases, batteries that incorporate this nanocarbon additive can expect an extension of battery life by up to 20%. This increased lifecycle directly translates into cost savings and lower waste, making it an attractive option for manufacturers and end-users alike.

Solar panels can benefit from enhanced lead-acid battery performance.

Strengthens the Negative Plates

The internal structure of lead-acid batteries plays a crucial role in their stability and performance. Cancrie

Nanocarbon reinforces the negative active material, significantly reducing material shedding. This structural reinforcement translates into better longevity and stability, especially in applications like tubular and deep-cycle batteries, which require consistent performance over extended periods.

How Is It Applied?

One of the standout features of Cancrie Nanocarbon is its ease of application. It is a drop-in solution, meaning it can be seamlessly integrated into existing negative paste formulations without necessitating major changes to equipment or processes. This simple integration saves time, effort, and costs, making it a practical solution for manufacturers looking to enhance battery performance without altering their production lines.

The material exhibits excellent dispersion qualities and integrates effortlessly with standard mixing practices. This makes it accessible for manufacturers of all sizes, from small workshops to large factories.

Backed by Research & Field Validation

Cancrie Nanocarbon is more than just a concept; it is a tested and validated solution. The additive has undergone rigorous testing over a three-year period in various international laboratories, proving its efficacy in lead-acid batteries. Notably, the Automotive Research Association of India (ARAI) has certified its performance, ensuring that this innovative solution adheres to high industry standards.

Since its introduction, Cancrie Nanocarbon has been deployed in over 80 MWh of batteries across India over the past 1.5 years. This extensive field validation provides further assurance to manufacturers considering its use.

Testing batteries with Cancrie Nanocarbon to ensure reliability and efficiency.

Backed by Science, Built by Experts

The development of Cancrie Nanocarbon is the result of collaboration among material scientists, battery chemists, and chemical engineers who are deeply familiar with both laboratory research and real-world battery manufacturing. Their expertise ensures that the additive not only performs well in theory but also integrates smoothly into existing manufacturing processes.

By facilitating faster and more efficient electrochemical reactions at the negative plate, Cancrie Nanocarbon empowers manufacturers to maximize performance without incurring higher costs.

Sustainability as a Value Add

In today's environmentally aware marketplace, sustainability is not just an option; it is a necessity. Cancrie Nanocarbon is produced from agricultural waste using a low-temperature, patented process. This means it avoids reliance on fossil fuels, resulting in a significantly lower carbon footprint compared to traditional battery materials.

Using sustainable methods and materials aligns with the industry's push towards greener battery solutions, making Cancrie Nanocarbon a viable option for manufacturers committed to adopting environmentally friendly practices.

Explosion in a house in Hansi due to an Electric Scooter Battery Bursting

The blast occurred as soon as the charging plug was removed

Naresh, a resident of Multan Colony, Hansi, was removing the charging plug of his electric scooter at home. Suddenly, due to an electrical fault, the scooter's battery caught fire.

While trying to save his family, the homeowner Naresh died on the spot due to burns. His wife and two children were seriously injured in the incident and have been admitted to the civil hospital for treatment. The battery caught fire and then exploded with a loud bang. The explosion was so powerful that the fire spread rapidly throughout the house. ❑

By focusing on improving charge efficiency, extending battery life, and enhancing structural strength, Cancrie Nanocarbon opens new avenues for lead-acid batteries in varying applications. This innovative additive is not just a technical advancement — it is a smart choice for those looking to thrive in a competitive marketplace while promoting sustainability. Improved lead-acid battery performance is not just a dream; it is the future we're working towards with Cancrie Nanocarbon. ❑

The New EV Policy will change the Air and Future of the Capital City

Under the leadership of Chief Minister Smt. Rekha Gupta, the Delhi government has taken another significant step towards building a pollution-free, modern, and sustainable Delhi. The new Electric Vehicle (EV) Policy, which will be implemented from the upcoming financial year, will be a powerful tool in making the capital's transportation system green, smart, and citizen-friendly.

This policy is not limited to simply electrifying vehicles, but aims to bring about a real improvement in the quality of life for the people of Delhi. Vehicular emissions are a major cause of pollution in the capital. By making EVs the primary choice, the government is working towards effectively reducing pollutants like PM 2.5 and PM 10.

Under the new EV policy, incentives will be provided for scrapping old petrol and diesel vehicles, along with attractive subsidies on EV purchases, and exemptions from road tax and registration fees, making it easier for every middle-class family to own an EV.

The Delhi government is also working on a comprehensive expansion of charging infrastructure across the city. Charging points will now be established not only in public places but also near residential colonies. Facilities such as battery swapping and safe battery disposal are also being developed.

In line with the Honorable Prime Minister Shri Narendra Modi's commitment to Net Zero 2070, the Delhi government considers EVs not just the future, but a necessity of today. ❑

Promotion of Electric Vehicles and Establishment of Electric Vehicle Charging Stations

The government has implemented the following schemes to promote electric vehicles (EVs) across the country:

Faster Adoption and Production of Electric (and Hybrid) Vehicles in India Scheme (FAME India): The second phase of the FAME India scheme was implemented for a period of five years, from 01.04.2019 to 31.03.2024, at a cost of ₹11,500 crore.

Production-Linked Incentive (PLI) Scheme for Automobile and Auto Components Industry in India (PLI-Auto): On September 23, 2021, the Government of India approved this scheme to promote the automobile and auto components industry in the country, aimed at enhancing India's manufacturing capabilities for advanced automotive technology (AAT) products. A budget of ₹25,938 crore has been allocated for this scheme. The scheme proposes financial incentives to promote the domestic production of AAT products, including electric vehicles. This also includes a minimum of 50 percent domestic value addition (DVA) and attracting investment in the automotive manufacturing value chain.

Production-Linked Incentive Scheme under National Programme on Advanced Chemistry Cell (ACC) Battery Storage: On 12.05.2021, the Government approved a PLI scheme with a budget allocation of ₹18,100 crore for manufacturing ACC batteries in the country. The objective of this scheme is to establish a competitive domestic manufacturing ecosystem for 50 GW of ACC batteries.

PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM e-DRIVE) Scheme: This scheme is implemented from 01.04.2024 to 31.03.2028, with an outlay of ₹10,900 crore. The scheme aims to support electric vehicles, including e-2W, e-3W, e-trucks, e-buses, and e-ambulances. The scheme also includes support for public charging stations and upgradation of testing agencies for charging electric vehicles. Under this scheme, buyers (consumers/end users) of e-2W, e-3W (e-rickshaws and e-carts), e-3W (L5), e-trucks, and e-ambulances are provided demand incentives in the form of upfront price discounts on the purchase of electric vehicles.

PM e-Bus Service - Payment Security Mechanism (PSM) Scheme: This scheme was notified on 28.10.2024 with an outlay of ₹3,435.33 crore and aims to support the deployment of over 38,000 electric buses. The scheme aims to provide payment security to

e-bus operators in case of payment defaults by Public Transport Authorities (PTAs).

Scheme for Promotion of Manufacturing of Electric Passenger Cars in India (SPMEPCI): This scheme was notified on March 15, 2024, to promote the manufacturing of electric cars in India.

Setting up electric vehicle charging stations is a non-licensed activity in which private entrepreneurs can also participate. On September 17, 2024, the Ministry of Power issued the "Electric Vehicle Charging Infrastructure Installation and Operation Guidelines-2024" to strengthen electric vehicle charging, including on national highways. These guidelines promote a connected and interoperable charging ecosystem by incorporating battery-swapping stations.

In addition, under the PM e-Drive scheme, ₹2,000 crore has been allocated for setting up electric vehicle public charging stations (EV PCS) across India, including on national and state highways.

According to information received from BHEL, a total of 29,151 EV charging stations have been installed so far. ❑

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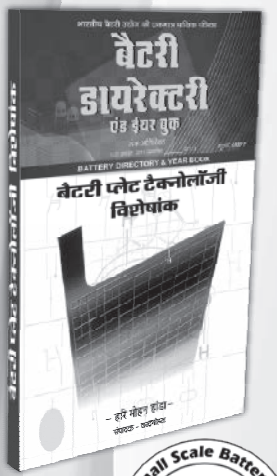

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Uniting Small Scale Battery Industry
40 years of Publication
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Ministry of New and Renewable Energy

Cost of Green Hydrogen to Decrease

The Ministry of New and Renewable Energy (MNRE) is implementing the National Green Hydrogen Mission (NGHM) with the objective of making the country a global hub for the production, utilization, and export of green hydrogen and its derivatives.

India's green hydrogen production capacity is expected to reach 5 million metric tons per year by 2030.

Several significant steps have been taken under the NGHM to reduce the cost of green hydrogen. These are detailed below:

Under the incentive scheme for electrolyzer manufacturing, 15 companies have been allocated a total manufacturing capacity of 3,000 MW per year. A total incentive amount of Rs. 4440 crore has been provided.

Under the incentive scheme for green hydrogen production, 18 companies have been allocated a cumulative production capacity of 8,62,000 tons per year.

Under the incentive scheme for the procurement of green hydrogen for refineries, 2 companies have been allocated a total capacity of 20,000 tons per year.

Other steps taken to reduce the cost of green hydrogen are as follows:

Green hydrogen/green ammonia plants commissioned on or before 31.12.2030 and which use renewable energy for the production of green hydrogen or green ammonia, have been exempted from the payment of inter-state transmission system charges for a period of 25 years from the date of commissioning of the project.

Units under Section 26 of the SEZ Act, 2005 have been allowed duty benefits for the installation, as well as operation and maintenance (O&M), of renewable energy equipment specifically for the captive consumption of the unit. The Ministry of New and Renewable Energy (MNRE) is supporting a research and development project titled 'Scale-up of Perovskite Tandem Solar Cell (Phase-I)' with a total project cost of Rs. 83.19 crore for the expansion and indigenization of perovskite tandem solar cell technology.

This information was given by the Union Minister of State for New and Renewable Energy, Shri Shripad Yeso Naik, in a written reply to a question in the Rajya Sabha today.

❑

Ministry of Heavy Industries

Addressing the Shortage of Rare Earth Magnets for Electric Vehicle Production

The Government of India is aware of the dependence on imports for rare earth permanent magnets used in the manufacture of electric and hybrid vehicles. This dependence on imports makes the supply chain vulnerable for manufacturers (OEMs) using these rare earth magnets.

The government is exploring alternative sources of supply for these magnets. The Production Linked Incentive (PLI) scheme for automobiles and auto components is strengthening indigenous capabilities in this regard. Under this scheme, these magnets for EV motors are listed as part of advanced automotive technology. It also promotes the indigenous development of alternative (rare earth-free) motor technologies and components. Furthermore, the Union Cabinet, on November 26, 2025, approved a scheme to incentivize the manufacturing of sintered rare earth permanent magnets with an outlay of ₹7280 crore. This aims to establish a permanent magnet manufacturing capacity of 6000 metric tons per annum in India.

This information was provided by the Minister of State for Heavy Industries, Shri Bhupathiraju Srinivas Varma, in a written reply to a question in the Rajya Sabha. ❑

"Less talk – more work! There is too much talking going on. Because of excessive talking, spiritual energy is being wasted."

International Exhibitions and Workshops in India

1,361 MSMEs benefited during the last five years

The Ministry of Micro, Small and Medium Enterprises (MSME) is implementing the International Cooperation Scheme to facilitate visits/participation of MSMEs in international exhibitions/fairs/buyer-seller meets and to provide financial assistance for organizing international conferences/seminars/workshops in India. Under this scheme, financial assistance is also provided to first-time micro and small exporters on Registration-cum-Membership Certificate (RCMC) with Export Promotion Councils (EPCs), export insurance premium, and testing and quality certification for exports. This scheme provides MSMEs with the opportunity to constantly update themselves to meet the challenges arising from technological changes, shifts in demand, emergence of new markets, etc. During the last five years, i.e., from 2020-21 to 2024-25, 1361 MSMEs have benefited from this scheme.

Further, the Government has approved the "Export Promotion Mission (EPM)" on 12.11.2025 as a comprehensive framework to strengthen the overall export ecosystem. The Mission will provide a comprehensive, flexible, and digitally driven framework for export promotion with a total outlay of Rs. 25,060 crore for the period FY 2025-26 to FY 2030-31. Under the EPM, there are two components: Export Incentives, which focuses on trade finance facilitation for MSME exporters, and Export Enablement, which provides non-financial enablers that enhance market readiness and competitiveness, including export-quality and compliance support, assistance for international branding, and participation in trade fairs, export warehousing and logistics, inland transportation reimbursement, and trade intelligence and capacity building initiatives.

The Micro and Small Enterprises Cluster Development Programme (MSE-CDP) aims to enhance the overall development of MSEs by increasing their productivity and competitiveness through a cluster-based approach. The government provides financial assistance for setting up Common Facility Centres (CFCs) in existing clusters and for the establishment/upgradation of existing industrial areas/estates/flatted factory complexes. During the last five years, i.e., from 2020-21 to 2024-25, 190 projects have been approved under the cluster development initiative, including 82 Common Facility Centres (CFCs) and 108 infrastructure development (ID) projects. ❑

"Teachers are reservoirs from which, through the process of education, students draw the water of life."

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Dt. 1st May 2025

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बी-10, लेप्रोसी होम, ताहिरपुर कुष्ठ कॉलोनी, समय प्रात: 9.30 से 12.00 तक
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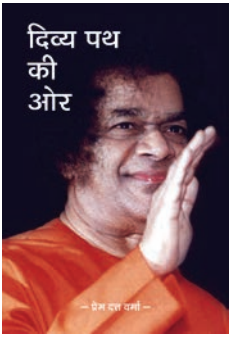

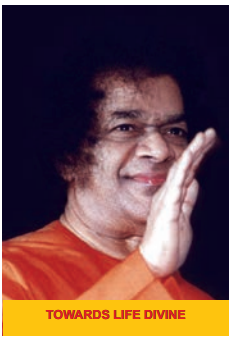

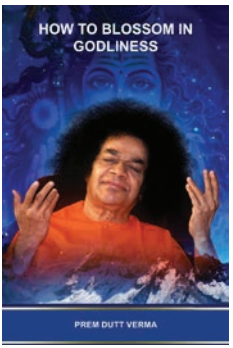

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Contents

Unique potency of Gayathri

Man today spends his life fully preoccupied with worldly concerns. Owing to attachment to the body; he forgets his true nature, is immersed in the affairs of the body as permanent and. makes bodily comforts his goal in life. These are the things which every individual experiences in daily life. If anybody accosts a person and asks him, "Who are you?", out of his identification with the body he gives his name in reply. In answer to further questions he introduces himself as a doctor, a farmer, or student, or the like. When the enquiry goes further, he identifies himself with his nationality as an American, an Indian, a Pakistani or so on. When you examine these answers deeply, you will find that none of them gives the truth. He got his name from his parents. It did not belong to him at birth. His identification with one or other of his professions is not true because he is not the profession. What, then, is the truth about him? "I am the Atma. That is my true Self." That is the truth. But people identify themselves with their names, professions and nationality and do not base their lives on the Atma. No driver of a car identifies with the car. Likewise the body is a car and the Atma is the driver. Forgetting one's true role as a driver, one is identifying one's self with the body, which is only a vehicle. This truth is emphatically brought out by the Gayathri manthra. "Dheha budhyath Dhasoham" (From the standpoint of the body, I am your instrument, your servant). "Jeevabudhyath Thvadhamshah" (In the context of the Jeeva, the individual soul, I am a spark of the Divine Thou). "Atmabudhyath Thvameva-aham" (In terms of the Atma I am yourself). When one views one's self from the Athmik standpoint, one is identical with the Divine. "I am you and you are me.

Our life is a three-storeyed mansion

Every man has thus three aspects. Our life itself is a three-storeyed mansion. The Brahmacharya (celibate) stage is the foundation of this mansion. After that, the stage of Grihastha (householder) is the first floor. Then you have the Vanaprastha (retirement from the life of a householder) stage as the second floor. Finally, there is the stage of the Sanyasa (renunciant), consisting-the third floor. Thus, Brahmacharya is the foundation for the other three stages of life. The safety and security of the other three floors depend on the strength of the foundation, vis, Brahmacharya. Hence, Brahmacharya is the basic foundation. But, unfortunately this vital fact has been forgotten by people. They feel happy on seeing the super-structure. But the whole edifice may collapse at any time if the foundation is weak. When you feel happy at the sight of a tree and its flowers and fruits, you must be concerned about its roots. The unseen foundation is the basis for the visible mansion. The invisible roots are the basis for the visible tree. Likewise, the invisible Prana (Life-Breath or Force) is the basis for the visible body. Prana has no form, while the body has a form. There is, however, the Athmik principle which confers all the potencies for the Prana (Life Force). It is because of the power imparted by the Atma that the Life Force is able to activate the body. The body inherently is inert. It is made up of different kinds of material substances.

Three potencies in man

In the Gayathri Manthra the first line is:"Om Bhur bhuvas suvah." This manthra is assumed to refer to three worlds, the earth, the middle world and Heaven - Svarga, the land of the gods.

Bhu refers to the body. It is made up of Pancha Bhuthas (five great, elements). These five elements constitute Prakrithi (Nature). There is an intimate relationship between the body and Nature. The same five elements that are in the nature are also in the body.

Bhuvah is the Prana Shakthi (Life Force) that animates the body. Even if the Life Force exists, without Jnana (Awareness) the body will be of no use. It is on this account that the Vedas declared:

"Prajnanam Brahma" (Constant Integrated Awareness is Brahman).

It is by the presence of Prajnana that the Life Force is able to animate the body. The body represents inert matter. The Life Force operates in the body as a vibration. This Vibration derives its power from Prajnana, which finds expression in radiation.

Therefore, the body, the Life Force and the Prajnana are all within man. The entire cosmos is present in miniature within man. It is because of these three constituents that we are able to see the cosmos and experience many other things. Every potency is within us. The external is a reflection of the inner being. It follows from this that true

manavathvam (humanness) is Dhaivathvam (Divinity) itself.

Hence, the Vedas declared that the divine appears in human form. Every human being is inherently Divine, but owing to his attachment to the body he' considers himself a mere man. How did this human body get animated by the Life Force? Whence has this Life Force come? It is from the Atma-Shakthi (the power of the Self). Making use of this power of the Self, the Life Force carries out all activities.

Triple aspects of Gayathri

Who is Gayathri? Gayathri is not a goddess.

"Gayathri Chandhasam matha" (Gayathri is the mother of the Vedas)

"Gayantham thrayathe ithi Gayathri" (Gayathri is that which redeems the chanter of the manthra).

Gayathri is present wherever the manthra is chanted. Gayathri, however, has three names, Gayathri, Savithri, Sarasvathi. These three are present in everyone. Gayathri represents the senses. It is the master of the senses.

Savithri is the master of Prana (Life Force).

Many Bharatheeyas are familiar with the story of Savithri who brought back to life her dead husband, Sathyavan. Savithri signifies truth. Sarasvathi is the presiding deity of Vak (Speech).

The three represent Thrikarana Shuddhi (purity in thought, word and deed). Although Gayathri has three names, all the three are in each of us as the senses (Gayathri), the power of speech (Sarasvathi) and the Life Force (Savithri). Gayathri is said to have five faces and hence is called Panchamukhi.

Is there anybody in the world with five faces? No. In the Ramayana, Ravana is said to have ten heads. If really he had ten heads how would he be able to lie in his bed or move about? This is not the inner meaning of this description. He is said to be ten-headed because he was the master of the four Vedas and the six Shasthras.

Likewise, Gayathri is described as five-faced. The five faces are as follows.

Om (the Pranava) is the first face. The Pranava Principle represents the Ashta Aishvarya (eight different forms of wealth).

The second face is: "Bhur Bhuvas Suvah."

The third is: "Thath-Savithur-varenyam."

The fourth is: "Bhargo Dhevasya dheemahi."

The fifth face is: "Dheyo yo hah prachodayath."

When the Gayathri manthra is understood in this way, it will be realised that all the five aspects of Gayathri are within each of us.

Power of Gayathri Manthra

The Gayathri manthra has all the three elements which figure in the adoration of God description, meditation and prayer. The first nine words of the manthra - "Om-Bhur-Bhuvas-Suvah-Thath-Savithur- Varenyam-BhargoDhevasya" - represent the attributes of the Divine. Dheemahi pertains to dhyana (meditation). "Dheyo yo hah Prachodayath" is the prayer to the Lord. The manthra is thus a prayer to God to confer all powers and talents.

"Sarva roga nivarini Gayathri" (Gayathri is the reliever of all diseases).

"Sarva dhukha parivarini Gayathri" (Gayathri wards off all misery).

"Sarva vancha phalashri Gayathri" (Gayathri is the fulfiller of all desires).

Gayathri is the bestower of all that is beneficial. If the manthra is chanted, various kinds of powers will emerge in one. Hence the Gayathri manthra should not be treated casually. In our respiration process the sound of Gayathri is embedded. That sound is a reminder of our true form. In the breathing process, there is inhalation and exhalation. In the Yoga-Shasthra, inhalation is termed Puurakam and the exhalation is called Rechakam. Holding the breath is called Kumbhakam.

When air is inhaled, the sound that is produced' is 'So-o-o.' When it is exhaled, the sound is 'Ham-m-m.' 'So-ham, Soham.' (Bhagavan demonstrated how this happens while breathing in and out). 'So' is "that." 'Ham' is "I". "I am that," "I am Divine." Every breath proclaims this. The Vedas declared the same thing in the pronouncements:

"Thath thvam Asi" (That thou art), "Aham Brahmasmi" (I am Brahman),

"Ayam Atma Brahma" (This Self is Brhman).

Gayathri is the indweller in the heart

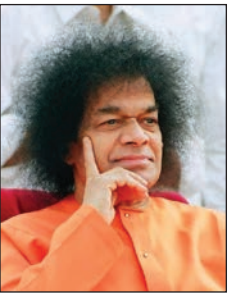
Don't imagine God is somewhere remote from you. He is within you. You are God. People want to see God.

"Sathyam Jnanam Anantham Brahma," say the scriptures. Truth is God. Wisdom is God. Both these are present everywhere.

They transcend the categories of time and place. Truth is that which is valid at all times - past, present and future. That truth is Gayathri. Gayathri is thus the indweller in the Hridhaya (heart).

Hri-dhaya contains the word Dhaya meaning compassion. There is compassion in every heart.

But to what extent is it shown in real life? Very little. All the while only anger, jealousy, pride and hatred are displayed. These evil qualities are not natural to man. They are opposed to human nature. It has been declared that one who bases himself entirely on the mind is a demon. One who bases himself on the body is an animal. One who follows the Atma (the Self) is divinely endowed. One who relies on the body, the mind and the Atma is a human being. Humanness is the combination of the body; mind and Atma. Man should



strive to ascend to the divine and not descend to the demonic or animal nature.

How to remove insecurity and secure security

From today onwards parents should teach their children stories with morals. You all know in what a chaotic condition the world is today. Disorder and violence are rampant everywhere. Peace and security are not to be found anywhere. Where is peace to be found? It is within us. Security is also within us. How is insecurity to be removed and security secured? It is by giving up desires. In the language of the ancient Bharatheeyas this was termed Vairagya (giving up attachment). This does not mean giving up home and family and retiring into the forest. It is reduction of wants. As a householder limit your desires to the needs of the family. As a student, stick to your studies. As a professional, adhere to the duties of your profession. Do not indulge in excesses of any kind.

In the practice of the Gayathri manthra, one should realise that everything is within one and thereby develop confidence in the Self. Man today is racked by numerous troubles because he has no confidence in the Self. The aspirant on the spiritual path is bound to face the troubles caused by the six enemies, lust, anger, greed, infatuation, pride and envy. He has to overcome them.

On an auspicious occasion like this, you should consider how you can lead an ideal life. Through faith in God, you have to sanctify the body. Without the body, you cannot experience the mind and the intellect. To achieve your ideals, the body is the instrument. It should be kept in proper condition. While the body is an instrument, the user of the instrument is the Self. All senses function because of the Atma.

The Atma is the Witness to everything. It is also known as Conscious Self. It derives its sanction from the Divine. It is a fragment of the Divine. Every human being is a spark of the Divine, as declared in the Geetha. The human being is essentially Divine, but tends to forget his Divine origin. The Gayathri manthra is enough to protect the person who chants it, because Gayathri embodies all the Divine potencies. It is an essential requisite for the young because it ensures a bright and auspicious future for them. The young students are the citizens and leaders of tomorrow. Hence, they should develop pure and noble thoughts. The parents also should foster such a development.

The meaning of Upanayanam

The Upanayanam ceremony is just over. The Gayathri manthra has been imparted to you. You are wearing the sacred thread with three strands tied in one knot. The three strands represent Brahma, Vishnu and Maheshvara. They also represent the past, the present and future. Upanayanam means being near to God. Nearness to God will enable you to get rid of your bad qualities and acquire virtues. ❑

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