



सुलीय

॥ न हि ज्ञानेन सदृशं पवित्रमिह विद्यते ॥



Mission PLastic-Free

IITE

Indian Institute of Teacher Education, Gandhinagar
1st December to 31st December, 2024

EDITORIAL TEAM

Ms. Sakshi Bhatt
 - Public Relation cum Publication Officer, IITE

Dr. Deepkumar Trivedi
 - Associate Professor, IITE

Dr. Archana Patel
 - Assistant Professor, IITE

Dr. Gopal Upadhyay
 - Assistant Professor, IITE

CONTRIBUTORS

Ms. Hiral Jani
 - Curator, IITE

Dr. Mehul P. Dave
 - Associate Professor

Dr. Deepkumar Trivedi
 - Associate Professor

Ms. Hirva Parmar
 - B.A.B.Ed. Sem:8

Mr. Meetkumar Rana
 - B.Sc. B.Ed. Sem:3

Mr. Dhyanish Modi
 - B.Sc. B.Ed. Sem:2

Ms. Chritina Serrao
 - B.A.B.Ed. Sem:2

Ms. Divya Sutariya
 - B.Ed.M.Ed. Sem:2

Photo Credits

Megh Modi
 - Photographer, IITE

Hardik Pancholi
 - Editor, IITE

DESIGN

Hardik Pancholi
 - Graphic Designer,, IITE



1. Vice-Chancellor Message	3
2. From Pollution To Solutions: Plastic Products And Green Alternatives	4
3. Extended Producer Responsibility (EPR)	8
4. Steps Toward A Plastic-free lite: A Revolutionary Drive!	11
5. Bharatiya Bahasha Utsav	12
6. Poetry	13
7. બાળવાર્તા: ઈચ્છા તળાવ	14
8. Key Of Success	17
9. Chips: A Treat or a Lifeline?	18
10. Shivkar Bapuji Talpade	18
11. End-of-Year Message	19
12. Activities At A Glance	20

Publisher

The Registrar,

Indian Institute of Teacher Education

Ramkrushna Paramhans Vidhya Sankul

Nr. Mahatma Mandir, Kh-Road, Sector-15, Gandhinagar-382016 (Gujarat) Indian

Phone : +91 -79-23287338, 23243733/34, Email: pro@iite.ac.in, pprbranch@iite.ac.in

website : www.iite.ac.in



iitegandhinagar

JOURNEY TOWARDS A PLASTIC-FREE FUTURE



Dear Readers,

It gives me immense pride to present this special issue of Sutirth, dedicated to the critical and timely theme of creating a plastic-free future. This issue is not just a collection of ideas and stories—it is a call to action, a testament to our shared commitment to safeguarding the environment for ourselves and future generations.

Plastic pollution has reached alarming levels, threatening the health of our ecosystems and communities. Yet, within this challenge lies an opportunity—to rethink, re-imagine, and reform our habits and practices toward sustainability. A plastic-free future may seem ambitious, but it is entirely achievable when we act together.

I encourage every reader to reflect on how we can contribute to this cause. Start small: reduce single-use plastics, adopt reusable alternatives, and educate others. Small, consistent steps lead to meaningful change.

This special issue of Sutirth amplifies ideas and solutions to inspire us all. Let its pages ignite a sense of purpose and empower you to become agents of change. Together, we can make a profound difference.

Let us embark on this transformative journey and lead the way toward a healthier, greener, plastic-free world. ■

With hope and determination,
Prof. R.C. Patel
Vice Chancellor
Indian Institute of Teacher Education



From Pollution to Solutions: Plastic Products and Green Alternatives

As India's economy grows, the need for resources is rising due to consumption, a trend seen in almost all market-driven economies. According to World Bank estimates, the world produced 2.01 billion tons of waste in 2016, and if things continue as they are, that amount is predicted to rise to 3.40 billion tons by 2050. Plastic is an excellent resource that can be utilized for many different things. Nowadays, plastic is utilized in practically every industry, including consumer goods, textiles, building, electrical and transportation machinery, and packaging.

The Challenge of Plastic Pollution

Single-use plastics, such as bags, bottles, straws, and packaging, are the primary culprits of pollution. These items often escape proper waste management systems, entering the environment where they fragment into micro plastics. These tiny particles are ingested by marine animals and enter the food chain, posing serious health risks to humans.

Plastic pollution has emerged as one of the most pressing environmental issues of our time. With over 300 million tons of plastic produced annually, a significant portion ends up polluting our oceans, rivers, and landscapes. The durability that makes plastic so useful also means it can take hundreds of years to degrade, causing long-term damage to ecosystems, wildlife, and human health.



Fig 1 : The dreadful Single Use Plastics

The Great Pacific Garbage Patch, a vast collection of marine debris in the North Pacific Ocean, stands as a stark reminder of the scale of this crisis. Additionally, the production and incineration of plastic contribute significantly to greenhouse gas emissions, exacerbating climate change.



One Plastics are one substance whose usage has grown exponentially; between 1950 and 2018, it increased 180 times.² According to a recent research, fewer than 20% of the plastic garbage generated worldwide would be recycled by 2060, and the amount is expected to increase. Despite being an amazing material that is used extensively in many different industries, single-use plastics account for about 40% of all plastic manufacturing and are thrown away after only one use. The fact that these plastics are not biodegradable and that we have long prioritized convenience over sustainability—which has killed the health of our planet and our standard of life on it—are the red flags here.

Fig 2 : Global and Indian Scenario of Plastic Production and Usage

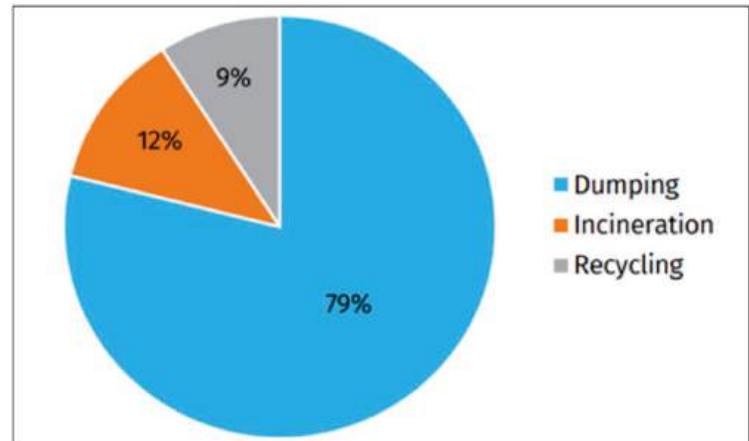
In India, 34 lakh tonnes of plastic garbage were left over from 2019–2020. And it keeps rising with each year that goes by. The Indian government has announced a total



ban on single-use plastic starting on July 1 2022 in an effort to mitigate the harm.

Fig 3 : Fate of Plastic Waste Across the Globe

(Source: Ronald Geyer et al 2017. "Production, use, and fate of all plastics ever made." Science Advances Vol. 3)



Deadly illnesses like cancer, birth defects, chronic bronchitis, liver dysfunction, asthma, infertility, obesity, and a long list of other conditions are unavoidably brought on by these single-use plastics. Given the dangerous consequences, the time and effort required to produce single-use plastic is simply not worth it.

Although it is now somewhat impossible to entirely eliminate plastic from our lives, we can take significant actions to reduce its usage and search for better alternatives in our daily life.

Fig 4 : Ecofriendly Alternatives of Plastic Products

In India, other alternatives to single-use plastic include: reusable cloth bags, stainless steel water bottles, bamboo cutlery, glass containers, paper bags, biodegradable packaging made from materials like corn starch, ceramic items, and even locally sourced natural fibres like jute, depending on the application, all aimed at reducing

To combat this growing issue, the adoption of sustainable alternatives and responsible consumption practices is essential. Some promising alternatives include:



- **Biodegradable Plastics:** Made from natural materials like cornstarch or sugarcane, these break down more easily in the environment, reducing long-term pollution.
- **Reusable Products:** Shifting to reusable bags, bottles, and containers can drastically cut down the demand for single-use plastics.
- **Natural Materials:** Materials like bamboo, jute, and glass are eco-friendly options for packaging and daily-use items.
- **Paper-Based Products:** Innovations in paper technology have led to durable, water-resistant alternatives to plastic.
- **Recycling and Upcycling:** Encouraging robust recycling systems and creative reuse of plastic waste can minimize its environmental impact.

Alternatives as per the use:

- For carrying groceries: Jute bags, cloth bags, canvas totes
- For beverages: Stainless steel water bottles, reusable glass bottles
- For food storage: Glass containers, ceramic containers
- Cutlery: Bamboo cutlery, reusable metal cutlery sets
- Straws: Bamboo straws, paper straws
- Packaging: Biodegradable packaging made from plant-based materials

Plastic Cups: Over 500 billion disposable plastic cups are used annually on average. Since they cannot be recycled, the majority of them are just left in landfills untreated. The

moment to take action is now; just think of the damage it can do in a few years.

Alternative: Use eco-friendly alternatives, such as paper cups. Purchase a reusable cup and use it at home, in the workplace, or on travel.

Plastic Cotton Buds: The majority of the 1.5 billion cotton buds that are generated daily on average end up in the oceans. Our aquatic habitat is slowly dying as a result of aquatic animals eating the plastic sticks that are left out in the open.

Alternative: The greatest substitute is by far the reusable silicon swabs that are already on the market. Other excellent solutions include bamboo cotton buds, earwax drops, and even going to the ENT specialist for a routine checkup.

Single-use plastic knives, spoons, and forks are difficult to recycle because of their small size and form, which prevents the recycling machines from sorting them. As a result, they wind up in landfills as untreated waste that takes hundreds of years to break down.

Alternative: Get a set of travel cutlery so you can entirely avoid single-use plastics and think about using reusable silverware instead.

Containers & Plates Made of Plastic

Once more, with billions of tonnes of untreated plastic garbage, it is time to shut down this industry entirely.

Alternative: Glass plates and bamboo and palm leaf plates are substitutes.

Straws made of plastic: The largest hazard to marine life is plastic straws. Due to their inability to decompose, billions of straws wind up in seas through streams, where they are consumed by aquatic life, ultimately leading to their extinction.

Alternative: Reusable silicone straws, paper straws, bamboo straws, and stainless steel straws are all excellent substitutes for plastic straws.

Sustainable packaging options have become more popular in recent years as a result of increased global awareness of the environmental risks caused by single-use plastics. Thankfully, a number of environmentally acceptable packaging alternatives are becoming popular and provide a means of lowering plastic waste while advancing sustainability.

One of the most often used substitutes for single-use plastics is paper packaging. It is an environmentally friendly option because it is compostable, recyclable, and biodegradable. Paper pouches, boxes, and bags are frequently used for a variety of goods, including apparel and groceries.

Another excellent substitute for single-use plastics is cardboard, a higher GSM paper type. It is frequently used to package shipping boxes,



appliances, and gadgets. Cardboard is renowned for its durability and capacity to tolerate rigorous treatment while in transit.

Glass is a timeless and environmentally friendly substitute for plastic when it comes to packaging food and beverages. It is infinitely recyclable, inert, and non-toxic. Drinks, sauces, and cosmetics are frequently stored in glass containers. Strong and highly recyclable, metals like steel and aluminum are typically used for a variety of packaging

- Reusable substitutes for plastic bags are fabric and cloth bags made of materials like cotton or jute. They are primarily utilized for promotional goods, gift wrapping, and shopping. These bags are biodegradable and can be used repeatedly.
- An environmentally beneficial substitute for aluminium foil and plastic wrap is beeswax wrap. These wraps are made from cotton that has been treated with jojoba oil, resin, and beeswax. They can be

These environmentally friendly choices offer a viable way to cut down on plastic waste while advancing sustainability. The product kind, intended durability, and environmental concerns all play a role in selecting the best packaging material.

As organizations and consumers place a greater value on sustainability, the market for these packaging substitutes is anticipated to grow. Adopting these substitutes contributes to the reduction of plastic waste and supports international initiatives to fight climate change and save the environment for coming generations. Our packaging choices can have a big impact on a more sustainable and eco-friendly future, whether we use paper, glass, metal, or creative alternatives like edible packaging.

The fight against plastic pollution is a shared responsibility that requires innovation, cooperation, and commitment. By embracing sustainable alternatives and reducing our plastic footprint, we can protect the planet for future generations. Every small step counts, from carrying a reusable bag to supporting businesses that prioritize sustainability. Together, we can pave the way for a cleaner, healthier world.

Policy and Awareness

Governments, organizations, and individuals all have roles to play. Policies banning single-use plastics and incentivizing eco-friendly products are effective steps. Public awareness campaigns and educational initiatives can inspire behavioral change, urging people to make

more sustainable choices. One of such magnificent policies is EPR (Extended Producer Responsibility). A separate article will explain the entire concept and effectiveness of EPR in regressing the plastic pollution. ■

Biodegradable Plastics



applications. For instance, steel is preferred for canned foods, although aluminum cans are commonly used for beverages.

Biodegradable Plastic:

The environmental impact of biodegradable plastics is reduced because they are designed to decompose organically. Cornstarch and sugarcane are examples of renewable resources that are used to make these polymers. They can be utilized in cutlery, bags, and packaging.

- Edible packaging takes sustainability to an entirely new level by which is biodegradable and can be in direct contact with the food or beverage. Some examples include edible water bubbles and edible product wrapping like energy gels and candy.

used to cover bowls, wrap food, and meet other storage requirements.

- PLA (polylactic acid), a plant-based plastic, is made from renewable resources like sugarcane or corn starch. PLA is utilized in 3D printing materials, packaging, and even cutlery. Under some circumstances, it can be composted.

Wooden packing, such as boxes and crates, is a sustainable choice, especially for large or bulky goods. It is reusable, and wood is a renewable resource in and of itself. There is a growing need for sustainable packaging options as people become more conscious of the harm that single-use plastics cause to the environment.



Extended Producer Responsibility (EPR) for Single-Use Plastics in India: A Detailed Analysis

Introduction

India is grappling with a significant challenge posed by the rampant use of single-use plastics. Plastic pollution is a significant environmental concern globally, and India is no exception. With the rapid growth in consumption patterns and urbanization, the country faces a mounting challenge in managing plastic waste. These non-biodegradable materials wreak havoc on the environment, polluting waterways, harming wildlife, and contributing to climate change. Among the many types of plastic waste, single-use plastics (SUPs) are particularly problematic due to their short life span and poor recyclability. To address this issue, India has adopted the concept of Extended Producer Responsibility (EPR), a policy approach aimed at reducing plastic waste generation and promoting environmentally responsible practices. This policy framework aims to shift the onus of plastic waste management from municipalities to the producers themselves, encouraging them to adopt sustainable practices and minimize their environmental impact.

What is Extended Producer Responsibility (EPR)?

With little focus on recycling or reintegrating these materials into the economy, material usage will continue to increase in the absence of significant governmental measures.

EPR is a policy framework that holds producers, importers, and brand owners accountable for the end-of-life management of their products and packaging. This approach shifts the responsibility for waste management from municipalities and consumers to the producers. EPR holds producers responsible for the entire lifecycle of their products, including their end-of-life management. Under this framework, producers are mandated to take back their products at the end of their useful life and ensure their proper recycling or disposal. This approach incentivizes producers to design products with recyclability and reusability in mind, reducing the overall environmental footprint. By making producers responsible for collection, recycling, and disposal, EPR encourages the adoption of sustainable practices, including the design of eco-friendly products and packaging.

Extended Producer Responsibility (EPR) has become a widely accepted policy notion in the face of this



impending disaster. Swedish academic Thomas Lindquist first proposed the idea of EPR in a 1990 paper for the Swedish Ministry of the Environment.⁴ EPR is a policy principle that, according to Lindquist, holds manufacturers responsible for the full lifecycle of their goods, especially during the stages of take-back, recycling, and final disposal. In addition to encouraging recycling, a strong EPR system may influence design modifications and the shift to plastic reduction and reuse.

By raising the costs of utilizing some problematic materials, especially for enterprises, EPR acts as a disincentive. This strategy pushes businesses to pursue more sustainable

options and reconsider their material selections. By holding manufacturers accountable for the product's post-consumer phase, the main objective is to encourage them to create ecologically sustainable designs.

Early in the 1990s, Extended Producer Responsibility (EPR) was proposed and put into effect. In particular, the German Packaging Ordinance, which went into effect in 1991, is frequently mentioned as one of the first and most significant instances of EPR.⁵ Because of this law, manufacturers had to be accountable for the full life cycle of their packaging, which included collecting and recycling it.

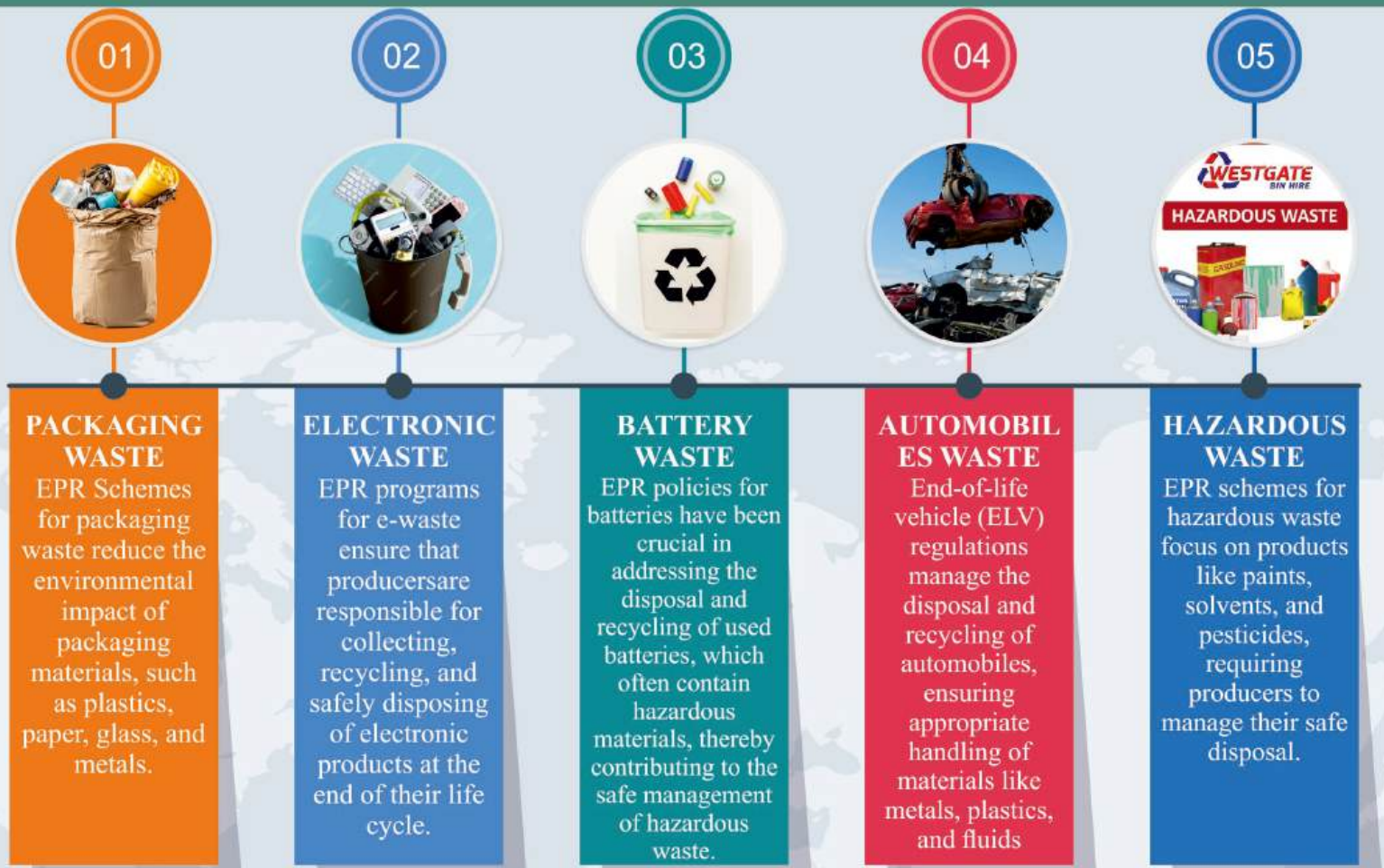


Figure 1: Waste types according to EPR policy requirements

Legal Framework for EPR in India

• EPR for Single-Use Plastics in India

The Indian government has incorporated EPR principles into its Plastic Waste Management Rules, 2016, which were subsequently amended in 2021. These rules mandate that producers, importers, and brand owners (PIBOs) of plastic packaging waste are responsible for collecting and recycling a certain percentage of the plastic waste generated by their products. The specific targets vary depending on the type of plastic and the industry.

India's Plastic Waste Management (PWM) Rules, 2016, and its subsequent amendments in 2018, 2021, and 2022 provide the regulatory framework for EPR. Key provisions include:

- **Mandatory EPR Registration:** Producers, importers, and brand owners (PIBOs) must register with the Central Pollution Control Board

(CPCB) or State Pollution Control Boards (SPCBs).

- **Plastic Credit System:** PIBOs can meet their EPR obligations by supporting plastic waste management activities or purchasing credits from organizations engaged in recycling or co-processing.
- **Target-Based Compliance:** Companies are required to meet specific targets for the collection and recycling of plastic waste proportional to their market share.
- **Collection and Recycling Targets:** PIBOs are required to achieve specific collection and recycling targets for plastic packaging waste. These targets are set based on the type of plastic and the industry.
- **Producer Responsibility Organizations (PROs):** PIBOs can either set up their own collection and recycling infrastructure or collaborate with Producer Responsibility Organizations

(PROs). PROs are entities that facilitate the collection, sorting, and recycling of plastic waste on behalf of multiple producers.

- **Ban on SUPs:** The Plastic Waste Management Amendment Rules, 2021, introduced a phased ban on identified single-use plastic items, including plastic cutlery, straws, and polystyrene.
- **Online EPR Tracking Platform:** An online platform has been established to track the EPR performance of PIBOs. This platform allows authorities to monitor compliance with the EPR guidelines and ensure that producers are meeting their targets.
- **Financial Penalties:** Non-compliance with EPR obligations can result in financial penalties for PIBOs. These penalties are intended to incentivize compliance and ensure that producers take responsibility for their plastic waste.

Minimization of Single-Use Plastics:

India's fight against SUPs gained momentum following the ban on 19 identified SUP items from July 1, 2022. The ban targets products that have low utility and high littering potential. To minimize the use of SUPs, the government and various stakeholders have adopted a multi-pronged approach:

1. Regulatory Measures

- **Prohibition of SUP Manufacturing and Sale:** The phased ban has led to reduced availability of SUPs in the market.
- **Penalty Mechanisms:** Violators of the ban face penalties, including fines and suspension of licenses.

2. Promotion of Alternatives

- **Biodegradable Materials:** Encouraging the use of biodegradable and compostable materials, such as bagasse, jute, and cloth.
- **Reusable Products:** Promoting reusable metal, glass, and ceramic items in households and industries.

3. Public Awareness Campaigns

- Campaigns like “Swachh Bharat Mission” and “Plastic Free India” have raised awareness about the hazards of SUPs.
- Educational institutions and NGOs are actively involved in organizing workshops and drives to promote alternatives.

4. Industry-Led Initiatives

- Several corporations are redesigning their packaging to be plastic-free or recyclable.
- Startups are innovating sustainable products, including edible cutlery and plant-based straws.

5. Infrastructure Development

- Investment in advanced waste segregation and recycling facilities.
- Integration of the informal waste-picking sector into formal waste management systems.



CHALLENGES IN IMPLEMENTATION

While India has made commendable progress, the path to achieving a plastic-free future is fraught with challenges:

- **Lack of Infrastructure:** Inadequate recycling facilities and improper waste segregation hinder effective plastic waste management.
- **Economic Viability:** High costs associated with sustainable alternatives deter small businesses from adopting them.
- **Enforcement Issues:** Weak monitoring and enforcement mechanisms result in non-compliance by producers and consumers.
- **Consumer Behavior:** Changing consumer habits and reliance on convenience-driven SUPs require sustained efforts.

The Way Forward

While EPR plays a crucial role in managing plastic waste, it is essential to adopt a multi-pronged approach to minimize the use of single-use plastics. To strengthen the EPR framework and minimize SUPs, the following measures are recommended:

Policy Enhancements:

- Introduce higher penalties for non-compliance.
- Encourage fiscal incentives for companies adopting eco-friendly practices.

Technological Innovations:

- Invest in research and development of cost-effective, biodegradable alternatives.
- Develop advanced recycling technologies to handle multi-layered plastics.

Stakeholder Collaboration:

- Foster partnerships between government, industry, and civil society for collective action.
- Empower local bodies to play a greater role in waste management.

Promoting Alternatives:

- Encouraging the use of reusable alternatives such as cloth bags, metal straws, and glass containers.

Education and Advocacy:

- Intensify public awareness campaigns to foster a culture of reduce, reuse, and recycle (3Rs).
- Incorporate environmental education into school curricula.

Stricter Regulations:

- Implementing stricter regulations on the production and distribution of certain types of single-use plastics.

CONCLUSION

EPR is a significant step towards addressing the plastic waste crisis in India. By holding producers accountable for the end-of-life management of their products, this policy framework incentivizes them to adopt sustainable practices and reduce their environmental impact.

However, the success of EPR depends on effective implementation, robust monitoring, and a concerted effort from all stakeholders, including producers, consumers, and the government. By working together, we can create a more sustainable future for India and minimize the environmental

impact of single-use plastics. The implementation of EPR and the minimization of single-use plastics represent critical steps in India's journey towards sustainable waste management and environmental conservation.

While challenges remain, a collective effort by the government, industries, and citizens can ensure a cleaner and greener future.

Through robust policies, innovative solutions, and behavioral change, India can lead by example in combating plastic pollution. ■

STEPS TOWARD A PLASTIC-FREE IITE : A REVOLUTIONARY DRIVE!

It is of profound significance that the IITE family came together for a noble initiative. Altogether, we proved that we aren't just shaping minds but a better planet too! Our Plastic-Free Campus Drive, led by our inspiring Vice Chancellor sir is a heartfelt push for sustainability. This mission isn't just about rules—it's about responsibility, community, and care for the Earth.

Bye-Bye Plastic Cups, Hello Steel!

In our campus canteen, change began with a simple switch. Plastic tea cups were replaced by sturdy steel ones. This small step feels personal—every sip now connects us to a cleaner future.

No More Plastic Bottles

Plastic water bottles? Not anymore. Our Vice Chancellor ensured the move to glassware for water at meetings and events. It's refreshing—in more ways than one—to know we're reducing waste with every glass.

One Day, Big Impact

One sunny day, the Vice Chancellor and Registrar sirs joined hands with NSS volunteers for a



campus-wide plastic collection drive. Armed determination, students visited every corner of IITE to collect the plastic waste. It was an unforgettable memory for students as they cleaned up the entire plastic by collecting it in dozens!

All together such initiatives were A Movement, Not Just a Campaign. It was about creating a greener, kinder world. The NSS team's hard work and every individual's effort made the dream of a plastic-free campus a reality.

At IITE, we're proving that change starts with us. Let's keep the momentum alive. Together, we can make a difference. ■



BHARATIYA BAHASHA UTSAV

Every year 11th December is celebrated as Bharatiya Bhasha Utsav to commemorate the birth anniversary of esteemed Tamil poet, writer, journalist and an eminent freedom fighter in the Independence movement, Shri Subramania Bharathi, popularly known as "Mahakavi Bharathi". Accordingly, celebrations are held every year on this date by the Ministry of Education and HEIs. The significance of this day is to promote dissemination of mother language to all and create maximum awareness of linguistic and cultural traditions throughout the world and to inspire solidarity amongst the people speaking many languages. In this regard, to discuss the preparation for the Utsav, an online interactive meeting of Vice Chancellors/Directors/Principals of all HEIs/INIs/Colleges with Hon'ble Chairman was scheduled for online interaction. This year it was decided to celebrate the "Bharatiya Bhasha Utsav" on 11th December 2024 in a grand manner to promote and preserve Mother language and Bharatiya Bhashas. The tenor of the occasion would be celebratory with the following objectives:

A. Highlight the linguistic diversity of our country and multilingualism, encourage the usage of not only the respective Mother language, but other Indian languages as well.

B. To understand the oneness of cultures and the various manifestations of literature, craft, performing arts, scripts, and other forms of creative expression.

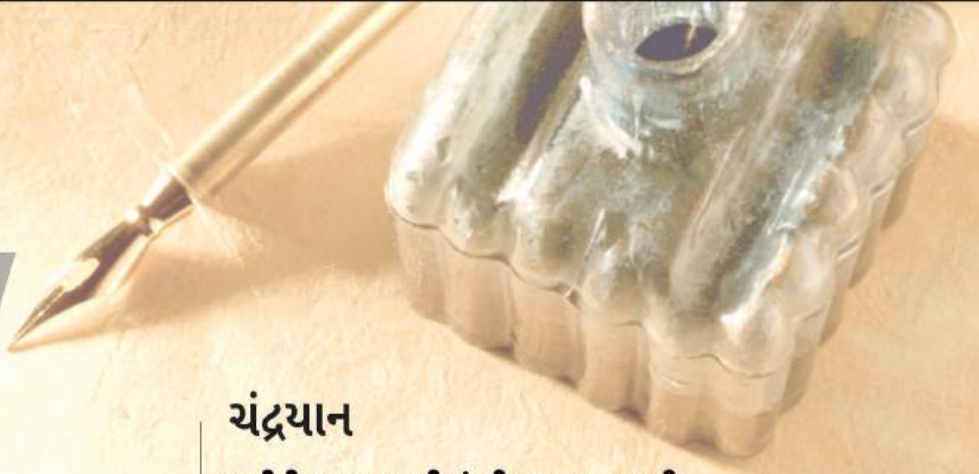
C. Promote Indian language in digital spaces, develop technologies and tools, encourage innovation and entrepreneurship through Indian languages.The HEIs were required to organize unique multilingual festivals on an appropriate scale to mark the occasion through activities like speeches, songs, poetry recitation, debates, poster-making, in Indian languages.



etc. As per the Ministry of Education directive, the IITE students were invited to participate in events like poetry recitation, speech and poster making. Students were given following topics for performance: -Linguistic Diversity of India & Multilingualism-Oneness of Indian Culture Through literature, craft, performing arts, and other creative expressions.

Promoting India Languages in Digital Space, Developing Technologies & Tools encouraging innovations & entrepreneurship through Indian language. ■

POETRY



The Grace Hues

The seasons of India, embrace the face of grace,
With nature's beauty in every place.
Spring enlightens with colours, fragrant and bright,
Fields of mustard swaying in golden light.
Summer arrives with a blazing sun,
Mangoes ripe, streams and rivers on the run.
Then comes the monsoon with roars of thunder,
Raindrops enchant on the thirsty floor.
Autumn whispers with harvests full,
The air turns crisp, and the winds grow cool.
Winter wraps the land in foggy veils,
With cozy fires and mountain trails.

- Dr. Deepkumar Trivedi
Associate Professor-IITE

IITE અમારું વિદ્યામંદિર

IITE અમારું વિદ્યામંદિર,
બાળ અમે સૌ દીવા,
દીવડે દીવડે સર્જીશું, યુગ જ્યોતિર્ધર શિવા,
સપના લઈને ઊંચા, સંસ્કારોને સિંચ્યા,
ચાલો સહુ આચરિયે આદર્શો જે ચિંધ્યા,
દીવડે દીવડે સર્જીશું યુગ જ્યોતિર્ધર શિવા.

સમતા, મમતા, રૂચિતા સદ્ભાવોની પ્રભુતા,
બન તું યુગ નિર્માતા, ઈતિહાસ નો રચીતા
ગંગા વહેતી જ્ઞાન તણી ને, વિજ્ઞાનોની રેવા
દીવડે દીવડે સર્જીશું યુગ જ્યોતિર્ધર શિવા.

નાના ફૂલડાં ખીલજો ફોરમ લઈને ફરજો,
સદીઓથી ટળવળતા પીડિતો ને હૈયે ધરજો,
સુખ ને શાંતિ વ્યાપે વિશ્વે, કર્તવ્યો છે કરવા,
દીવડે દીવડે સર્જીશું યુગ જ્યોતિર્ધર શિવા.

IITE અમારું વિદ્યામંદિર
બાળ અમે સૌ દિવા....

-Parth Yogi
B.Sc. B.Ed.
Semester: 4

ચંદ્રયાન

પૃથ્વીની ભ્રમણકક્ષાથી ચંદ્રની ભ્રમણકક્ષા સુધી,
અવકાશી જ્ઞાનની યાત્રા સુધી.....ચંદ્રયાન.

ચતુર્થ સ્થાનથી સર્વોચ્ચ શિખર સુધી,
ભારતનો જંડો લહેરાવવા સુધી...ચંદ્રયાન.

પહેલ વાર-બીજી વારની નિષ્ફળતા નાથવા થકી,
અગાઉના ખર્ચથી પણ ઓછા ખર્ચ સુધી...ચંદ્રયાન.

જ્યા અમેરીકા, ચીન કે રશિયા પણ ના પહોંચી ના શક્યા
તે દક્ષિણ ધ્રુવની નજીકના ઉતરાણ સુધી.....ચંદ્રયાન.

-Darshan Zaveri
Jr. Clerk-IITE

આ તો જાદુ છે વિજ્ઞાનનો

બીજ માંથી છોડ બને ને એમાંથી વટ વૃક્ષ,
રંગબેરંગી પુષ્પની સાથે આવે લીલા તૃણ,

આ તો જાદુ છે વિજ્ઞાનનો.

પાણીની વરાળ વાદળ રૂપે રહે છે ઉપર,
વરસાદ રૂપે પાણી વરસે છે સૌની ઉપર,

આ તો જાદુ છે વિજ્ઞાનનો.

પીળો રંગ હળદરનો લીંબુ સાથે આપે લાલ,
એસિડ ભળે બેઇઝ સાથે આપે એ તો ક્ષાર,

આ તો જાદુ છે વિજ્ઞાનનો

આયર્ન રશ્મી છે ને સ્ટીલ ચમકે છે,
તાંબુ ખેંચાય છે ને સોનું ટીપાય છે,

આ તો જાદુ છે વિજ્ઞાનનો.

સમય સાથે અંતર બદલે તો કહે છે વેગ,
સમય સાથે વેગ બદલે તો કહેવાય પ્રવેગ,

આ તો જાદુ છે વિજ્ઞાનનો.

ઉપર ઉછાળેલ વસ્તુ નીચે આવે કહો એનું કારણ,
ગુરુત્વાકર્ષણ બળ જે આકર્ષે વિના કોઈ ભારણ,

આ તો જાદુ છે વિજ્ઞાનનો.

ન્યુટન કહે આઘાતની સામે લાગે છે પ્રત્યાઘાત,
રહે અચળ વેગી ગતિ જો ના લાગે તેને આઘાત,

આતો જાદુ છે વિજ્ઞાનનો.

-Harsha Dodiya - B.Sc.B.Ed. Semester: 7

બાળવાર્તા: ઈચ્છા તળાવ



એક હતું ચકલીનું બચ્ચું. તેનું નામ હતું 'ચકી'. તે દસ જ દિવસનું હતું. બચ્ચું ઉદાસ થઈને ઝાડની ડાળી પર બેઠું હતું. ત્યાં ચકીનો મિત્ર શુક આવ્યો. શુક કહે "ચકી ચકી કેમ ઉદાસ થઈને બેઠી છે?" ચકી જવાબ આપતી જ હતી ત્યાં જ ચકીની માતા આવી અને ચકીને કહે "ચકી ચાલતો હવે ચણ ચણતા અને માળા બાંધતા શીખવાનું છે ને. પણ ચકી એ તો બહાનું કાઢ્યું અને કહે "ના, હું પછી આવીશ, થોડી વારમાં આવું છું." આવું કહી તરત જ ચકીનું બચ્ચું શુક સાથે થોડે દૂરની ડાળી પર જતું રહ્યું.

ચકીની માતા તો ચિંતા કરે કે બચ્ચું પંદર દિવસનું થશે એટલે મોટું થઈ જશે. જેમ મનુષ્ય પણ ૧૮ થી ૨૦ વર્ષના થાય અને મોટા થઈ જાય તેમ. પછી માળો બાંધતા નહીં શીખે તો કેમ ચાલશે?

ચકી અને શુક બીજી ડાળી પર આવી તો ગયા પણ ચકી તો હજી ઉદાસ જ બેઠી હતી. એટલે શુકે ફરી પૂછ્યું "શું થયું છે? ચકી કેમ ઉદાસ છે? કંઈક તો બોલ." શુકના આવા આગ્રહથી ચકીએ કહ્યું, "મારે તો લક્કડખોદની

જેમ લાકડામાં ચાંચ મારવી છે, કબૂતરની જેમ સંદેશાની આપ-લે કરવી છે, કાગડાની જેમ ચતુરાઈ-ચાલાકી વાપરવી છે, ગીધની જેમ આકાશમાં સૌથી ઊંચે ઉડવું છે, ગરુડ જેમ પક્ષીઓનો રાજા છે તેમ પક્ષીઓની રાણી બનવું છે."

પણ માતા પિતા આવું કરવાની ના પાડે છે. આવું કરવાની આઝાદી નથી આપતા. આ બધી વસ્તુ આપણાથી ન થાય એવું કહે છે. ભગવાને બધાને પોતપોતાની મર્યાદા અને જરૂરિયાતો પ્રમાણે લાક્ષણિકતા આપી છે. લક્કડખોદ લાકડામાં ચાંચ મારી શકે તો તે દરજીડાની જેમ સુંદર માળો ન બનાવી શકે. ગીધ સૌથી ઊંચે ઊડી શકે તો તે કોયલની જેમ મીઠા અવાજે ગાઈ ન શકે. આવું સાંભળી શુકે કહ્યું, "લે, આટલી વાતમાં તે કાંઈ ઉદાસ થવાય! મારી પાસે એક ઉપાય છે." શુકે ચકીને ઉત્સુકતાથી કહ્યું, "ચકી ચકી તને ખબર છે અહીંથી સૂર્ય ઊગે એ પૂર્વ દિશામાં એક મોટો આંબાનો બગીચો છે. તેની પાછળ એક 'ઈચ્છાતળાવ' છે, ત્યાં જઈને કહેવાનું,

હે ઈચ્છાતળાવરે,
ઔષધી સાથે માછલી લાવરે,
ઔષધી હું ખાવરે,
ઈચ્છા પૂરી કરરે,
હે ઈચ્છાતળાવરે.

અને પછી ઈચ્છા માગવાની. તળાવમાંથી એક સુંદર માછલી એક ઔષધી લાવે. ઔષધી એટલે દવા. દવા થોડી કડવી લાગે પણ એ ખાઈ જવાની એટલે આપણી ઈચ્છા પૂરી થઈ જાય!

આવું સાંભળી ચકીને તો ભારે નવાઈ લાગી. ચકીએ આશ્ચર્યથી પૂછ્યું, "ખરેખર? કે પછી મને હસાવવા આવું કહે છે?" શુક કહે "ના ભાઈ ના, હસાવવા નથી કહેતો. ખરેખર આવું જ છે."

ચકી તો ખુશ થઈ ગઈ. તેણે શુકને ઈચ્છાતળાવ સુધી લઈ જવા કહ્યું અને તરત જ બંને નીકળી પડ્યા. જાણે કોઈ ખજાનાની શોધમાં ન જતા હોય તેમ!

બંનેએ પૂર્વ દિશામાં ઉડવાનું ચાલુ કર્યું. ઉત્સાહમાં અને ઉત્સાહમાં બંને એટલું બધું અંતર કાપી ગયા કે આંબાનો બગીચો ક્યારે આવી ગયો

એ ખબર જ ન રહી. પણ બંને ઘણું ઉડ્યા હતા અને ભૂખ પણ લાગી હતી. એટલે શુકે ચકીને કહ્યું, 'ચાલને ચકી, પહેલા થોડીક કેરી ખાઈએ બહુ ભૂખ લાગી છે.' પણ ચકીને તો ઈચ્છાતળાવ પાસે જવાની ઉતાવળ હતી એટલે કહે, "ના હો શુક, અહીં પાછળ જ તો છે ઈચ્છાતળાવ. ચાલ પહેલા ત્યાં જઈએ."

શુકને બહુ ભૂખ લાગી હતી એટલે ફરી કહ્યું, 'ના ચકી, જો આ બગીચાના પહેલા આંબામાં જ કેવી સરસ પાકેલી રસદાર કેરી છે! ત્યાં જઈને ખાઈએ. બસ પાંચ જ મિનિટ થશે. ચાલને ચકી."

ચકીએ શુકની વાત માની લીધી અને પહેલા આંબા પર કેરી ખાવા ગયા. બંને મીઠી મીઠી પાકેલી કેરી ખાતા હતા. ત્યાં જ બંદૂકની ગોળીનો અવાજ સાંભળ્યો. એટલે બંનેને થયું કે કોઈ શિકારી આવ્યો લાગે છે. બંને પાંદડા પાછળ સંતાઈ ગયા અને શિકારીને શોધવા લાગ્યા. આમ જોવે, તેમ જોવે પણ શિકારી તો દેખાય જ નહીં. ત્યાં જ શુકની નજર પેલા અજીબ દેખાતા પ્રાણી પર પડી. પણ એ પ્રાણીના ચાર પગ, પૂંછડી અને પેટ હરણ જેવા જયારે ડોક, કાન અને મોં જિરાફ જેવા લાંબા હતા. તે દોડતું દોડતું આંબાના બગીચા તરફ આવ્યું અને જોત-જોતામાં તો તે પ્રાણી બગીચામાં ઘૂસી ગયું.

બધા આંબા લીલાછમ ઘટાદાર હતા. ઉપરથી નજીક નજીક પણ હતા. તેમાં જિરાફ જેવી લાંબી ડોક ક્યાંથી દોડી શકે? આ ડાળીમાં અથડાય, તે ડાળીમાં અથડાય. આથી દોડવાની ઝડપ પણ ઘટી ગઈ. અથડાવાથી તેની ડોક પણ લોહી લુહાણ થઈ ગઈ. ઉપરથી શિકારી પણ બંદૂકની ગોળીઓ ચલાવે જતો હતો.

ચકી અને શુક તો ગભરાઈ ગયા. આ બધું થું ચાલી રહ્યું છે. બંને આંખો મોટી કરીને જોઈ રહ્યા. ત્યાં અચાનક જ શિકારી દેખાતો બંધ થઈ ગયો, અદ્રશ્ય થઈ ગયો. એટલે પેલા અજીબ દેખાતા પ્રાણીને હાસ થઈ. પણ શુક અને ચકી તો વિચારમાં પડી ગયા કે શિકારી ક્યાં ગયો?

પેલું અજીબ દેખાતું પ્રાણી બિચારું ડરથી ધ્રુજી રહ્યું હતું. તે ખૂબ ધાયલ થઈ ગયું હતું. ચકી અને શુક બંને અજીબ દેખાતા પ્રાણી પાસે જવા ઉડવા લાગ્યા. રસ્તામાં જોયું તો શિકારી પોતે જ ખોદેલા ખાડામાં પડી ગયો હતો. વળી ખાડો પણ એટલો બધો ઊંડો કે બહાર પણ નહોતો આવી શકતો. આ જોઈ ઉડતા ઉડતા જ શુકે ચકીને કહ્યું "જો ચકી આ શિકારીએ પ્રાણીનો શિકાર કરવા ખાડો ખોદ્યો હતો. હવે પોતે જ તેમાં પડી ગયો."

બંને વાતો કરતાં કરતાં પેલા અજીબ દેખાતા પ્રાણી પાસે આવી પહોંચ્યા. ત્યાં જઈને પ્રાણીને પૂછ્યું કે, "તું કયું પ્રાણી છે? હરણ છે કે જિરાફ છે?" બિચારું પ્રાણી દુઃખ ભર્યા અવાજે બોલ્યું "હું હરણ જ છું. પણ તમે સિંહને તો ઓળખો જ છો. એટલા બધા શાંત પગલે શિકાર કરવા આવે કે નજીક આવી જાય પછી તો અમને ખ્યાલ આવે કે સિંહ આવ્યો, હવે તો ભાગવું પડશે. અને વળી શિકારીનું પણ એવું જ છે. દૂરથી જ બંદૂક ચલાવે

તો પણ અમને ગોળી વાગે. એટલે મને વિચાર આવ્યો કે જો જિરાફની જેમ લાંબી ડોક હોય ને તો દૂરથી જ સિંહ કે શિકારીનો ખ્યાલ આવી જાય. લાવ ને ઈચ્છાતળાવ પાસે જઈને જિરાફ જેવી લાંબી ડોકની ઈચ્છા માંગું. આથી ઈચ્છાતળાવ પાસે જઈને મેં કહ્યું:

હે ઈચ્છાતળાવરે,
ઔષધી સાથે માછલી લાવરે,
ઔષધી હું ખાવરે,
ઈચ્છા પૂરી કરરે,
હે ઈચ્છાતળાવરે.

અને પછી ઈચ્છા માંગી થોડી વારમાં તો માછલી પાંખ નીચે ઔષધી લઈને આવી. એ ઔષધી કડવી હતી. પણ હું ખાઈ ગયો. ત્યાં તો આંખના પલકારાની સાથે સાથે મારી ડોક જિરાફ જેવી લાંબી થઈ ગઈ.

આ બધું સાંભળી શુકે તરત જ કહ્યું, "જોયું હરણ તારી ઈચ્છા કેવી તરત જ પૂરી થઈ ગઈ."

પણ હરણ તો ઉદાસ થઈને બોલ્યું, "ઈચ્છા તો પૂરી થઈ પણ આ લાંબી ડોક સાથે આટલા લીલાછમ જંગલમાં મારાથી દોડાતું નથી. અને જંગલ પણ ગાંઠ એટલું બધું છે કે આટલા ઉપરથી મને દેખાતું પણ નથી કે સિંહ આવ્યો કે શિકારી આવ્યો. આટલા બધા પાંદડા, ડાળખી વચ્ચે વચ્ચે આવે ને. ઉપરથી મારું શરીર એટલું બધું નાનું કે મારી આટલી લાંબી ડોકને ખમી જ નથી શકતું. મારા શરીરને કેટલું બધું વજન લાગે છે!" હરણ બોલતા બોલતા રડવા લાગ્યું, "હવે આવા શરીરનું હું શું કરું? આવું શરીર તો ગાઢ જંગલમાં ક્યાંથી ચાલે? ભગવાને મને નાનું શરીર ને નાની ડોક આપી હતી એ જ બરાબર હતું."

ચકીએ કહ્યું “પણ જિરાફતો આફ્રિકાના જંગલમાં રહે. અને એ પણ ખુલ્લા મેદાનોમાં રહે. લાંબા લાંબા ઝાડ હોય ત્યાં રહે તો તો જિરાફની ડોક પણ અથડાયા જ કરે.”

હરણ અફસોસ કરતાં કરતાં બોલ્યું “હા, એ જ તો. મેં વિચાર્યા વગર જ ઈચ્છા માંગી. પણ હવે મારે આવું શરીર નથી જોઈતું. ઈચ્છાતળાવ પણ એક જ ઈચ્છા પૂરી કરે છે. એટલે હવે ફરી ઈચ્છા પણ નહીં માગી શકાય.”

શુકને હરણ પર દયા આવી. શુકે હરણને વચન આપ્યું હરણ પાછું મૂળ શરીર પ્રાપ્ત કરે એવી તે ઈચ્છા માંગશે. હરણને બહુ વાગ્યું હતું. આથી ચકી અને શુક જલ્દી જલ્દી ઈચ્છાતળાવ તરફ જવા નીકળ્યા. ઈચ્છાતળાવ આવ્યું. એ તળાવ જોવામાં અલગ જ લાગતું હતું. સાત રંગોના મિશ્રણવાળું સુંદર એવું પાણી હતું. જાણે મેઘધનુષ્યના સાત રંગની યાદર ઓઢેલી હોય. તળાવની આસપાસ ઊગેલા ફૂલોમાં જાણે ભગવાનને બધાથી અલગ જ એવા ચમકતા રંગો પૂર્યા હોય! તળાવમાં રંગબેરંગી માછલીઓ ઉછળ-ફૂદ કરતી હતી. આવું અદ્ભુત દૃશ્ય જોવામાં શુક અને ચકી ભાન જ ભૂલી ગયા કે તે તો ઈચ્છા માગવા આવ્યાં હતાં.

ચકીને અચાનક જ યાદ આવ્યું એટલે શુકને કહ્યું કે “ચાલ ઈચ્છા તો માંગ.” શુક બોલ્યો,

હે ઈચ્છાતળાવરે,
ઔષધી સાથે માછલી લાવરે,
ઔષધી હું ખાવરે,
ઈચ્છા પૂરી કરરે,
હે ઈચ્છાતળાવરે.

અને ઈચ્છા માંગે કે “હરણને આટલું બધું દુઃખ થાય છે તે ન થાય અને ફરી પાછું તેને તેનું શરીર મળી જાય.” થોડીવારમાં માછલી ઔષધી લઈને આવી. ઔષધી તો કડવી હોય છે એટલે શુકે મોં બગાડતા બગાડતા ઔષધી મોંમા મૂકી. પણ ગજબ જ થઈ ગયું. ઔષધી તો મસ્ત મીઠી હતી. એટલે શુકે તરત કહ્યું “આ ઔષધી તો મધ જેવી મીઠી છે.” આ સાંભળી તળાવમાં રહેલી

માછલી બોલી “તમે બીજાને મદદ કરવાની ઈચ્છા પ્રગટ કરી. તમે તમારા માટે કંઈ ન માગ્યું. એટલે ઔષધી મીઠી લાગી.”

હવે ચકીનો વારો હતો. ચકી બોલી હે ઈચ્છાતળાવરે,
ઔષધી સાથે માછલી લાવરે,
ઔષધી હું ખાવરે,
ઈચ્છા પૂરી કરરે,
હે ઈચ્છાતળાવરે.

અને ઈચ્છા માગી. થોડીવારમાં માછલી આવી અને પાંખની નીચેથી એક પાંદડામાં લખેલો સંદેશ આપ્યો. સંદેશ હતો કે “ચકી તારી ઈચ્છા છે કે તું તારા માતા પિતાની શ્રેષ્ઠ પુત્રી બને. તેના માટે તારે કોઈ ઔષધીની જરૂર નથી. તારે માતા પિતાને ખુશ રાખવાના અને તેની આજ્ઞાનું પાલન કરવાનું”

આવું વાંચી શુકને તો નવાઈ લાગી કે ચકીને તો સપનું પૂરું કરવું હતું. પણ આવી ઈચ્છા કેમ માગી એટલે શુકે તરત જ પૂછ્યું “ચકી તે આવું કેમ કર્યું?”

ચકીએ ખૂબ જ સરસ જવાબ આપ્યો “ભગવાને બધાને પોતપોતાની જરૂરિયાત પ્રમાણેની વસ્તુઓ આપી છે, લાક્ષણિકતાઓ આપી છે. તો જે વસ્તુ મારા લાયક નથી, જે લાક્ષણિકતા મારા માટે નથી તેની ખોટી જીદ ન કરવાની હોય. મને મારી માતા પણ બે ત્રણ દિવસથી ચણ ચણતા અને માળો બનાવતા શીખવાડતી હતી. પણ હું ન શીખી અને માતા પિતાને દુઃખી કર્યા. હવે તો મારે માતા પિતાની શ્રેષ્ઠ પુત્રી બનવું છે.”

શુક અને ચકી તો ખુશ થતા થતા પાછા ફર્યા. હરણ પાસે પહોંચ્યા. હરણ પણ પોતાના મૂળ શરીરમાં આવી ગયું હતું. બંને ઘરે પહોંચ્યા. ચકીએ તેની માતાને કહ્યું “મારે માળો બનાવતા અને ચણ ચણતા શીખવું છે.”

આ સાંભળી ચકીના માતા-પિતા પણ ખુશ થઈ ગયા. ■

-Hirva Parmar
B.A.B.Ed.
Semester: 8

POETRY

સમાજ ચક્ર

કેવો સમય હતો જ્યારે સમાજના દર્દથી હૃદયના તાર ઝંફૂત થતા,
કેવો યુગ હતો જ્યારે સદાચારના કૃત્ય સમાજ વડે પુરસ્કૃત થતા,
લોકો તેમની ત્રિજ્યામાં રહી પરીધની ખબર રાખતા,
પોતાના વતૃળમાં વસતા અન્યો પર પણ નજર રાખતા,
માનવતાની મહેક હતી, પરોપકારની ટેક હતી,
પરમાર્થની મનોસ્થિતિ બે ધૃવો વચ્ચે છેક હતી,
વિચારબિંદુના ઉદગમસ્થાન જુદા હતા.
પથ્થર નહીં માનવ માત્ર જ્યારે ખુદા હતા
વહી ગયો સમય, બદલાઈ છે વિચારધારા,
આજે વ્યક્તિવતૃળનો વ્યાસ પોતા સુધી સીમિત બન્યો છે,
સમાજની સારપનો શ્વાસ હણવા સહજ નિમિત્ત બન્યો છે,
લોકો પોતાના અસ્તિત્વની આરપાર અભેદ કિલ્લાઓ રચતા,
સ્વાર્થ , નિસ્પૃહતા, લાલચ ને પ્રપંચના અતૂટ દરવાજા બનતા,
બીજાની સમસ્યાનો ઉકેલ હાથવેંતમાં રાખતો માનવી,
પોતાના પ્રશ્નો સમજવામાં હરદમ થાપ ખાતો માનવી.
મશીનના મિકેનિઝમમાં એવો ફીટ થતો માનવી,
ક્યારેક એલાર્મ પહેલાં ખુદ જ ઉઠી જતો માનવી. ■

-Amit Singhala
Assistant Registrar-IITE

ज्ञान की प्राप्ति के कई श्रोत हैं और उसे पाने के भी कई मध्यम हैं। लोग अपने आपको ज्ञान प्राप्ति से अपना और अपने सभी साथियों का या अपने देश को सही राह और सही मार्ग बता सकते हैं। कई लोग हमारे इतिहास में ऐसे भी थे जिनके पास ज्ञान का भंडार था पर उसका उचित उपयोग करना नहीं आता था इस कारण उनका विनाश हुआ। आज लोगो को ज्ञान का अर्थ और उसका उचित उपयोग भी आना चाहिए। ज्ञान एक मध्यम है जो अपने सोच को बदल ती है और अपने ज्ञान का उपयोग भी समझती है। व्यक्ति को अपनी विचारो और अपने ज्ञान उचित उपयोग भी समझती हैं। हमें अपने ज्ञान को प्राप्त करने के लिए अप विचारों का नियंत्रण और अपने मन पर अंकुश रखना चाहिए। इसी से ही हम अपना ज्ञान प्राप्त कर सकते हैं। हमारा ज्ञान 2 प्रकार का होता है। पहला, ज्ञान जो हम समाज को दिशा दिलाने या समाज को उचित राह दिखाने के लिए होता है। दूसरा, ज्ञान जो समाज को या अपने देश को उचित राह और उचित कल्याण के लिए नहीं पर अपने निजी के लिए लेते हैं। उसे ही स्वार्थिज्ञान कहा जाता है।

आजके सब मनुष्य स्वार्थिज्ञान को प्राप्त कर रहे हैं। आज की शिक्षा पद्धति भी ऐसी ही हो गई है। लोग अपने स्वार्थ के लिए ही शिक्षा का उपयोग करने लगे हैं। हमारा ज्ञान है जो हमें दुसरो से अलग बनाता है। हम अब ज्ञान के मध्यम के द्वारा लिए जाते ज्ञान दो तरह के होते हैं, पहला ऐसा ज्ञान जो हम अपने आत्मा या फिर अपने ज्ञान से प्राप्त करते हैं ऐसे ज्ञान को आध्यात्मिक या आत्मज्ञान कहा जा सकता है। दूसरा ऐसा ज्ञान जो हम किसी शास्त्रों या फिर किसी ग्रंथो से लेते हैं। उसे पुस्तकीय ज्ञान या फिर माहिती भी कह सकते हैं। इन दो ज्ञान में अपना अपना महत्व छीपा हुआ होता है। आत्मज्ञान या आध्यात्मिक ज्ञान की बात करे तो इस ज्ञान के दर्शन

हमको आज बुद्ध धर्म, जैन धर्म, और पहले के हिंदू धर्म में भी देखने को मिलता है। भगवान बुद्ध और महावीर जिनकी मूर्तिओको देख कर हमें पता चलता है की वो ध्यानावस्था में बैठे हैं।

जो दर्शाते हैं की आत्मा ज्ञान ही है जो हमें अपने विचारो और अपने कर्मों के प्रति नियंत्रण दिखलाता है। और आध्यात्मिक ऊर्जा का स्त्रोत और उस ऊर्जा की शक्ति को दर्शाती हैं। पुस्तकीय ज्ञान जो हमें पुस्तको द्वारा प्राप्त होता है जिसे हम अपनी समझदारी से उस ज्ञान को प्राप्त करते हैं। इस ज्ञान का भी अपना महत्व है। इस ज्ञान से हमारी माहिती का विस्तार होता है जो हमें अपने इस ज्ञान से हमारी माहिती द्वारा हम चीजों को समझ सकते हैं। और उसके अनुरूप अपना व्यवहार कर सकते हैं। कुछ फिलोसोफर का कहना है की मनुष्य की बुद्धि में ज्ञान का भंडार छीपा हुआ है। बस हमें उस ज्ञान को बाहर निकालना है। और कुछ का कहना है की हम अपने ज्ञान को अपनी मेहनत और अपनी समझदारी से ही प्राप्त कर सकते हैं।

कुछ लोगो का कहना है की व्यक्ति का जीवन से ही हमें ज्ञान की प्राप्ति होती है। हमने पहले बात किया की लोग ज्ञान का उसके उपयोग से उसका महत्व दिखाई देता है, हम कहे तो कछ लोग होते हैं जो दूसरों की गलतियों से सीख लेते हैं और कुछ ऐसे

भी लोग होते हैं जो खुद की गलतियों से सीख तै हैं और समाज में ऐसे भी लोग पाए जाते हैं जो पहले गलती करते हैं और बाद में उसी गलती को पुनरावर्तित करते हैं। हमें सदैव अपनी ओर दूसरों की गलतियों को देख कर ही अपना पैर बढ़ाना चाहिए। हमारे यहाँ एक उदाहरण भी देख ने को मिलता है की रावण जिस के पास ज्ञान का भंडार था उसने शिव मंत्र और कई संगीत के ग्रंथ लिखे। वे अपने समय का महान ज्ञानी था। वह अपने समय में ज्ञान का सागर था। जब उस की अतीम अवस्था में था तब भगवान राम के भाई लक्ष्मण को ज्ञान दिया था की "जो व्यक्ति अपनी और दुसरो की भूलो से नहीं सीखता वो मूर्ख होता है।" हमें अपने ज्ञान को जीवन के हरेक पहलू में बढ़ते रहना चाहिए। हमें अपने बढ़ते ज्ञान के साथ साथ अपनी धीरज को भी बढ़ाना चाही है। "ज्ञान ही सर्वोत्तम है।" ऐसा हमारी भागवत गीता में श्री कृष्ण के द्वारा कहा गया था। ज्ञान ही है जो मनुष्य को दूसरे प्राणियों से अलग करता है। ज्ञान ही वो मार्ग है जिससे हमें परमात्मा की प्राप्ति हो ती है। हमें अपने ज्ञान को सब लोगो के समक्ष प्रगट करते रहना एक बेवकूफी है। हमें अपने ज्ञान को हमेशा सभालके और उचित समय आने पर ही अपने ज्ञान का प्रदर्शन करना चाहिए। हमें कभी भी अपने ज्ञान का घमंड नहीं करना चाहिए।

ज्ञानी वो हैं जो हमेशा अपने विचारो और अपने मन के साथ होश के रहे। ज्ञानी वो हैं जिस से हमें अचेत ऊर्जा का आभास हो। ज्ञान के तो वैसे बहोत से मार्ग हैं और ज्ञान प्राप्ति के माध्यम भी बहोत हैं। बुद्धि से हमें चीजे समझ में आती हैं और ज्ञान से हमें उसका महत्व और उपयोग पता चलता है। ■

-Meetkumar Rana
B.Sc. B.Ed.
Semester : 3



CHIPS: A TREAT OR A LIFELINE?

Chips have become an integral part of our lives, whether they are edible or not. In today's Semiconductor Era, nearly every object we use is powered by chips – specifically, semiconductor chips. Let's delve into the "chips" of this new age.

THE BACKBONE OF MODERN TECHNOLOGY

Semiconductor chips are the foundation of today's technological advancements and will remain

crucial for the future. Made from materials like silicon, these chips exhibit electrical conductivity that lies between that of a conductor and an insulator. They are essential for creating integrated circuits, commonly referred to as 'Ics.' In simple terms, semiconductor chips are the invisible engines driving modern technology.

TYPES OF SEMICONDUCTOR CHIPS

There are several types of semiconductor chips, each serving a distinct purpose in various applications:

1. Logic Chips:

These chips perform computational and processing tasks. Examples include CPUs, GPUs, and microprocessors. Leading manufacturers of logic chips include Intel, Qualcomm, and Toshiba.

2. Memory Chips:

Designed for digital data storage, these chips include RAM, ROM, flash memory (e.g., USB drives and SSDs), DRAM, and SRAM.

3. Analog Chips:

These chips process continuous signals such as sound, temperature, and light. They are widely used in sensors, audio equipment, and signal processing.

4. Power Semiconductor Chips:

These manage electrical power distribution and conversion. They are essential for electric vehicles, power electronics, diodes, and transistors.

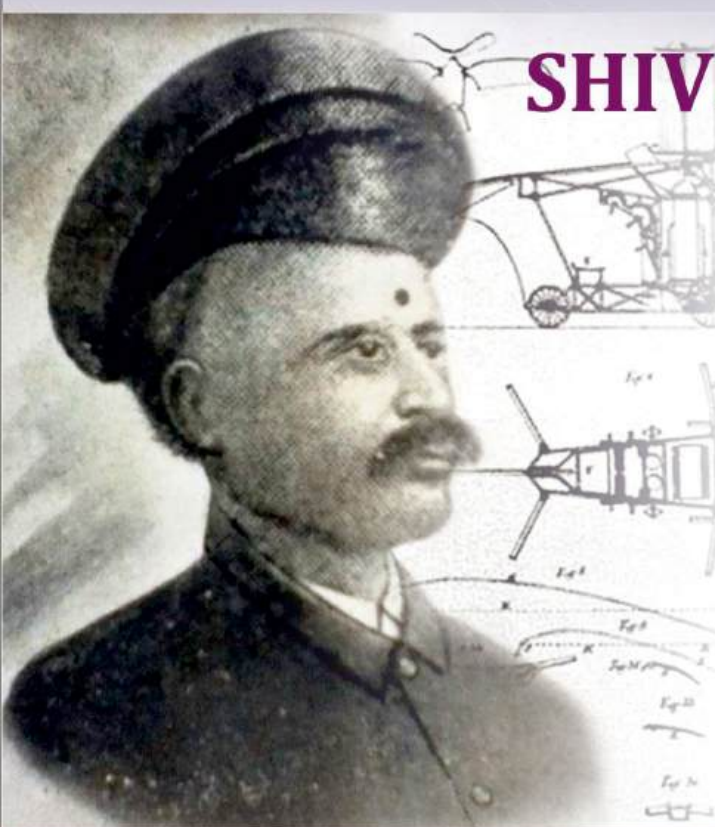
Today, chips have achieved a level of computational power that was once unimaginable. For

THE FUTURE OF CHIPS

instance, Google's Willow chip can solve complex calculations in under

five minutes—a task that would take the fastest classical supercomputer approximately ten septillion (10^{25}) years to complete. If successful, the future of quantum computing may be much closer than previously anticipated. ■

-Dhyanish Modi
B.Sc. - B.Ed
Semester:2



SHIVKAR BAPUJI TALPADE

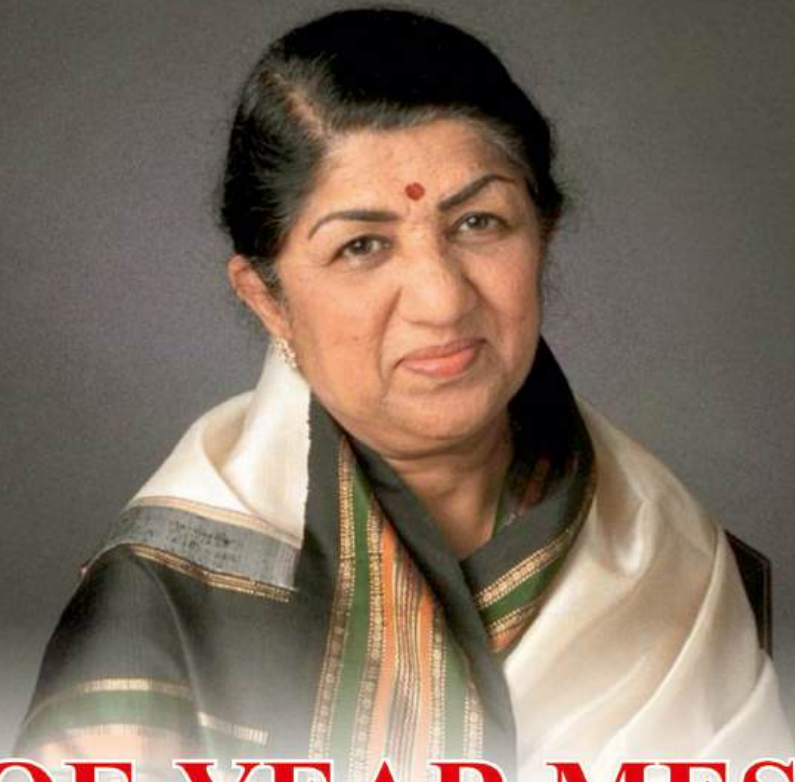
Shivkar Bapuji Talpade was born in 1864 in Mumbai. He was an Indian instructor in the Sir JJ School of Art with an interest in Sanskrit and Aviation. Moreover, he had immense knowledge of Sanskrit and was a scholar of Vedas and Sanskrit. He dreamt of flying and exploring space so, he started looking for mentions of flying in the Vedas. On his journey, he met Pt. Subbaraya Shastry; author of Vaimanika Shastra. Shastry gave him scriptures for making an aircraft.

In 1895, he built his flight and named it Makutsakha, in which Makut means air and

Sakha means friend. It flew 1500 feet above Bombay's Chow patty Beach and remained in the air for 18 minutes. An editorial was published about his achievement in a Marathi newspaper, 'Kesari' by Bal Gangadhar Tilak. His invention was also published in the London newspaper.

Due to the British Raj and Western dominance, his journey and success story was never featured in our textbooks. ■

-Christina Serrao
B.A.B.Ed.
Semester: 2



END-OF-YEAR MESSAGE

As 2024 comes to a close, let us reflect on our purpose & passion and check our priorities as we get ready to enter the new year. Here is an excerpt from Lata Mangeshkar's last words that inspire us to make the most of this invaluable human birth and truly make it a game-changer.

"Nothing in this world is more true than death.

The world's most expensive branded car is parked in my garage. But, I was confined to a wheelchair!

All the different designs and colors, expensive clothes, expensive shoes, expensive accessories in this world are in my house. But I'm in a hospital-provided short gown!

I have a lot of money in my bank account but it is of no use to me. My house is like a palace to me, but I am lying

in a small bed in a hospital.

I kept moving to five star hotels in this world.

But now I am being sent from one lab to another in the hospital!

At one point, 7 hairdressers would do my hair every day. But today I have no hair on my head.

I have eaten at various 5 star hotels around the world. But today my diet is two pills a day and a drop of salt at night. I was traveling around the world on different planes. But today two people helped me to the hospital veranda.

None of the facilities helped me or gave me peace. But the faces of some loved ones, their prayers keep me alive.

This is life. No matter how rich you are, you will eventually leave empty-handed.

So be kind and help those you can.

Avoid judging people for money and power.

Love good people, love people who are there for you.

Don't hurt anyone, be good, do good because that's what will go with you." ■

-Divya Sutariya

B.Ed.M.Ed.

Semester: 2



Bhartiya Bhasha Utsav

The month of December brought in a mix of activities wherein students as well as staff members of IITE were immersed and had good times rolling. Here's a quick recap of all activities that took place during December 2024. Sip on and enjoy!

December 11 is celebrated as Bharatiya Bhasha Utsav to commemorate the birth anniversary of the esteemed Tamil poet, writer, journalist, and eminent freedom fighter in the Indian independence movement, Shri Subramaniam Bharathi, popularly known as "Mahakavi Bharathi." In line with the direction from the Ministry of Education, IITE celebrated this occasion to promote and preserve the mother tongue and Bhartiya Bhasha. As part of the celebration, various activities were organized, including poster making, poetry recitation, talks/speeches, and essay writing (in Bhartiya Bhasha). ■



**Plastic
Free
Earth,
Pure
and
Simple**

सार्थका:

MARSHALLING CADETS FOR PURPOSEFUL PROGRESS



The 2nd Refresher Teachers' Training "सार्थका" for New Sainik Schools was organized by the Centre of Training during 16th to 21st December 2024 (Offline Mode) and from 30th December 2024 to 4th January 2025 (Online Mode). 12-day National level Training comprising 100 Educators from 34 New Sainik Schools all over India had everything—Deepajyoti vibes, the university song, and a powerhouse lineup of dignitaries: Prof. R.C. Patel (Hon'ble VC of IITE), Prof. Bharat Joshi, Professor at Gujarat Vidyapeeth. ■

Research Orientation Programme

The Centre for Research organized an enlightening Orientation Programme on Research Metrics wherein Professor Arun Anand from the Department of Physics at Sardar Patel University came as the Expert of the Session organized on 19th December 2024. ■



The University Sports Festival for the staff members of IITE was full of youthful spirit. The academic and administrative staff members of the university came together on the ground to play numerous games. From traditional games to cricket, staff members had an amazing fun time and made lifelong memories organized on 24th December 2024. ■



UNIVERSITY SPORTS FESTIVAL



INN OFEST



During the University Sports Festival, faculty members organized Inn ofest for students. They were given the task of working on projects

related to a range of important topics. The primary aim of this initiative was to actively engage students in various activities, helping them enhance their skills and broaden their knowledge in these critical areas organized on 24th December 2024. ■



INTER UNIVERSITY EMPLOYEE

The Academic and Administrative Staff Team of IITE participated in the Inter University employee sports festival organized at Junagadh Agricultural University, Junagadh from December 26-28, 2024. ■

SPORTS FESTIVAL



Teachers' Training



Center of Training, IITE conducted a teachers' training workshop for Anandniketan School Teachers, at Sughad on "NEP 2020 in School Education" during December 27, 2024. The workshop was conducted for 81 teachers of the school through experiential mode of conduct. ■

Malaviya Mission Teacher Training Program

1st Refresher Course: The UGC-funded Malaviya Mission Teacher Training Center (MMTTC) at the IITE has successfully completed the 1st Refresher Course on title "A Multidisciplinary Refresher Course in Social Science" during 9th to 21st December 2024 (Online Mode). Total 101 participants across nation attended the course

1st Short Term Program: First Short Term Program under The UGC-funded Malaviya Mission Teacher Training Center (MMTTC) organized during 23rd to 28th December 2024. 102 beneficiaries participated nationwide. ■

Third Stage of 28th National Youth Fest

IITE got the opportunity to host & showcase the third stage of 28th National Youth Fest 2025: Vikshit Bharat, The Young Leaders dialogue on December 28, 2024. Around 250 students across Gujarat came to IITE for the third stage: Vision Pitch Presentation. ■

MANTHAN SERIES

The MANTHAN Series was initiated by the Ph.D. Facilitation Center with the primary objective of equipping scholars with essential statistical and analytical skills, ranging from basic to advanced levels.

First Lecture delivered on 2nd December 2024 by Dr. Dharmesh Raykundaliya on the topic "Science

of Variability and Variance."

Second Lecture delivered on 12th December 2024 by Prof. Parag Shah on the topic "Basics of Multivariate Analysis."

Third Lecture delivered on 24th December 2024 by Dr. Mayank Bhatt on the topic "Fundamentals of Regression Analysis" ■

Plastic Free Campus Drive



The active NSS team at IITE conducted an epic Plastic-Free Campus Drive on December 31, 2024. Along with students, our Hon'ble VC sir Prof. RC Patel also joined his hands in the noble initiative and delivered a power-packed speech. ■

Second Rank in All India Sports Knowledge Exam



Mr. Dev Karelia, an MSc-MEd student of IITE, has secured second rank in the All India Sports Knowledge Exam conducted by Krida Bharti, India. His remarkable achievement has brought pride to the institute as he was awarded a cash prize of Rs. 50,000. We extend our heartfelt congratulations to him!. ■



ECO

**Live Plastic-Free,
Live Carefree**



॥ न हि शून्यं सत्यं पवित्रं विदते ॥



सुचीथ

सूचिथ सुचीथ सुचीथ