VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA, BELAGAVI - 590018, KARNATAKA

A Report On

"Social Connect and Responsibility"

Submitted in partial fulfilment of the requirements for the III Semester of

Bachelor of Engineering in Information Science Engineering ofVisvesvaraya Technological University, Belagavi

Submitted by

Prajwal M (1AM23IS115)

Under Guidance of

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AMC Engineering College

Department of Information Science Engineering

AMC ENGINEERING COLLEGE

18 Km, Bannerghatta Road, Bangalore - 560083

2024-25

AMC ENGINEERING COLLEGE

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DEPARTMENT OF INFORMATION SCIENCE ENGINEERING

CERTIFICATE

This is to certify that **Prajwal M (1AM23IS115),** the Bonafide student of AMC Engineering College has successfully carried out his **Social connect and responsibility** Activities in partial fulfillment of the requirements for the award of degree in **Bachelor of Engineering in Information Science Engineering of Visvesvaraya Technological University, Belagavi** during academic year 2024- 2025. It is certified that allcorrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department. This report has been approved as it satisfies the academic requirements in respect of the said degree.

Mrs. Vinutha Mam
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DECLARATION

I, **Prajwal M (1AM23IS115)** student of 3rd semester Bachelor of Engineering at the Department of Information Science Engineering, AMC Engineering College, Bengaluru declare that the Activity work entitled **"Social connect and responsibility"** (SCR) has been carried out by me and submitted in partial fulfilment of the course requirement for the award of degree in Bachelor of Engineering in Information Science Engineering of Visvesvaraya Technological University, Belagavi during the year 2024-25

I also declare that to the best of my knowledge and belief, the work reported here does not form any part of other Activity based on which a degree or award was conferred in earlier occasion on this by any other student.

Place: Bengaluru PRAJWAL M

Date:13/11/2024 1AM23IS115

ACKNOWLEDGEMENT

The joy and satisfaction that accompany the successful completion of any task would be incomplete without the mention of those who made it possible. I am glad to express my gratitude towards my prestigious college AMC ENGINEERING COLLEGE for providing me with utmost knowledge encouragement and the maximum facilities in undertaking this project.

I am grateful to my guide Mr**s. Vinutha Assistant Professor, Department of ISE,** AMC Engineering College, Bangalore for his unfailing encouragement and suggestion, given to me in the course of my activity work.

I would like to extend my special thanks to **Dr. Amutha, Professor & HOD,Department of ISE** for her support and encouragement.

I express my sincere thanks and gratitude to our **Principal Dr. K. Kumar** for providing me an opportunity to carry out my activity work.

I am also grateful to all the staff members of the Department of Artificial Intelligence and Machine Learning & Engineering for their encouragement and support.

Last but not the least, I wish to thank all my friends and family members for their help and cooperation.

Place: Bengaluru

Date: 13/11/2024 **Prajwal M**

(1AM23IS115)

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Module -1

"Plantation and Adoption of trees"

Student Involved: Prajwal M (1AM23IS115)

Under The Guidance of

Mrs. Vinutha Mam

Assistant Professor

Department of ISE, AMCEC

Description of the Activity:

- Contribute to environmental restoration and biodiversity enhancement.
- Mitigate climate change by utilizing trees as carbon sinks.
- Improve local air quality through pollution filtration and oxygen release.
- Provide practical environmental education opportunities for students.
- Enhance community well-being with the creation of green spaces.
- Encourage sustainable practices through defined tree adoption periods.
- Support wildlife habitats, promoting biodiversity and ecological balance.
- Beautify the surroundings and create recreational spaces for the community.
- Contribute to water conservation by preventing runoff and soil erosion.
- Foster community collaboration and shared responsibility for environmental conservation.

INTRODUCTION

Trees are the silent, towering guardians of our planet, providing a multitude of invaluable benefits that touch every aspect of life. Their significance extends beyond the aesthetics of landscapes, reaching into environmental, social, and even psychological realms. Planting trees is a simple and effective way to combat climate change, as trees absorb carbon dioxide from the atmosphere during photosynthesis and store it in their tissues. Additionally, planting trees can help to restore ecosystems that have been degraded by human activities such as deforestation, urbanization, and agriculture. Tree planting can be done by individuals, organizations, and governments, and can be carried out in various locations, including urban areas, rural areas, and forests. Proper care and maintenance, such as watering, pruning, and protecting trees from pests and diseases, are essential for their successful growth and survival.

PLANT ORIGIN

SCIENTIFIC CLASSIFICATION

Kingdom : plantae

Order : Geraniales

Family : Geraniaceae

Genus : Pelargonium

Species : P. x hortorum

Geranium is a genius of 422 species of annual, biennial and perennial plants. The palmately cleft leaves are broadly circular in form. The flowers have five petals and are coloured white, pink, purple or blue , often with distinctive veining. Geraniums will grow in any soil as long as it is not waterlogged.

Propagation is by semi ripe cuttings in summer, by seed, or by division in autumn or spring. Geraniums are eaten by some larvae of some lepidoptera species including brown-tail, ghost moth and mouse moth. The species Geranium viscosissimum is considered to be protocarnivorous

IMPORTANCE OF GERANIUM

Here are some of the benefits of Geranium :

Unique and attractive foliage: The polka Dot plant is known for its striking foliage with contrasting spots. This unique feature can brighten up any indoor or outdoor space and add a touch of whimsy to your plant collection.

Easy to grow and maintain: Polka Dot plants are relatively low-maintenance and can be easily growth both indoors and outdoors in suitable climates. They adapt well to a range of light conditions, making them an excellent choice for beginners or those with limited gardening experience.

Versatility: The Polka Dot plant is well-suited for a variety of settings, such as container gardens, borders, mixed plantings, or as an accent plant in a larger landscape design. They can also thrive indoors as houseplants, making them a flexible addition to your plant collection.

Air purification: Like many houseplants, Polka Dot plants can help improve indoor air quality by absorbing pollutants and releasing oxygen, contributing to a healthier living environment.

Non-toxic to pets and humans: Polka Dot plants are considered non-toxic, making them a safer choice for households with pets or small children who may be tempted to nibble on the leaves.

Opportunities for propagation: Polka Dot plants can be easily propagated through stem cuttings, allowing you to expand your collection or share plants with friends and family.

ADOPTION OF THE PLANT

On 25th January 2024 I went with my friends to visit K P Green Care Nursery. Which is in basavanapura gate, Bannerughatta Road, Bengaluru, Karnataka. I went there to adopt a plant. I adopted a plant and the name of the plant was “GERENIUM”.

Geranium is a genus of 422 species of annual , biennial and perennial plants. They are found throughout the temperate regions of the world and mountains of the tropics, with greatest diversity in the eastern part of the Mediterranean region.

From now, I want to take care of this plant. Adopting a plant can provide a wealth of benefits to any home or office. From improving air quality to providing stress relief, the advantages of plant adoption are numerous. However, it is important to do our research and to consider the type of plant that may be best suited for our needs and environment. I enjoyed a lot by seeing different types of plants in this Nursery and my friend adopted a plant. We both enjoyed by adopting the plant.

CONCLUSION

Planting trees is essential for addressing the challenges of climate change, biodiversity loss, and improving the quality of life for people. Geranium leaf was tested to analyse the presence of phytochemicals and their antioxidant activities. Successive extraction of the leaf was done using Soxhlet apparatus and the extract was partitioned using hexane, chloroform and methanol. The analysis of different solvent extracts of the leaf material showed the presence of several phytochemicals. The antioxidant activity was measured by DPPH, ABTS, Hydroxy radical, Total antioxidant capacity and reducing power assays. The flavonoid and polyphenolics present in the leaf sample were also estimated. The phytochemical analysis of methanolic and aqueous leaf extract showed the presence of carbohydrates, proteins, steroids, fixed oils and fatty acids, flavonoids, alkaloids, saponins, tannins and polyphenolics, which are the perfect sources of antioxidants. The findings of these studies suggested that Geranium leaf could have a major role as a therapeutic agent in reducing oxidative stress-related disorders. But there is lesser amounts of polyphenolics and flavanoids present in the leaf sample. The work regarding the isolation of active compounds responsible for antioxidant capacity will be carried out for the future.

Report on

Module -2

"Heritage walk and Crafts Corner"

Student Involved: Prajwal M (1AM23IS115)

Under The Guidance of

Mrs. Vinutha Mam

Assistant Professor

Department of ISE, AMCEC

Description of the Activity:

- A Heritage Walk is a guided tour that takes participants through historical and culturally significant areas.
- This activity aims to connect people with the past, highlighting architectural marvels, traditional practices, and stories that have shaped the community.
- A Crafts Corner is a designated space where participants can engage in hands-on artistic activities, creating traditional crafts that reflect the cultural heritage of a specific region.
- This activity encourages individuals to express their creativity while learning about and preserving traditional craftsmanship.

INTRODUCTION

"Heritage" refers to the cultural, historical, and natural legacy that is passed down from previous generations. It encompasses tangible and intangible elements that hold significance and value to a particular community, society, or civilization.

It is tool to explore the unexplored and neglected richness of the country. The importance of heritage is multi-faceted, encompassing cultural, historical, social, and economic dimensions. Here are some key aspects highlighting the significance of heritage: Cultural identity, Historical continuity, Tourism and economy, Educational value and many more.

HERITAGE SITE

Isha foundation is a nonprofit, spiritual organization that was founded in 1992 near Coimbatore,

Tamilnadu, India by sadhguru. Another one which was located in chikkaballapur. Over 15,000 years ago, predating all region, Adiyogi,the first yogi, transmitted the science of yoga to his seven disciles, the saptarihis. He expounded their limitations and reach their ultimate potential 'Yogeshwar linga', which was concecrated by sadhguru as a manifestation of five of the major chakras in the human system.

Adiyogi, with the presence of the yogeshwar linga, has become a living entity. Adiyogi was designed to be an iconic presence that would serve as a remainder to orient every human being towards their liberation the image of Adiyogi imprints itself in the mind of anyone who pays attention to the form for even a minute.

And there is a Laser Imagenary show where we can attend a stunning 14-minute visual imagery show projected on the Adiyogi.

Sadhguru's lecture accompanies this visual delight on Adiyogi, which occurs every day at 7.p.m. This show highlights Adiyogi's devotion to humanity.

The Adiyogi statue in chikkaballapura is a replica of a popular statue at Isha yoga center in Coimbatore. There is also a Naga Mantapa on the premises as well. This place is still under construction but open to the public post the unveiling of the statue. Almost a year back in Feb 2022, the Bhoomi Pooja was performed and this location has been identified.

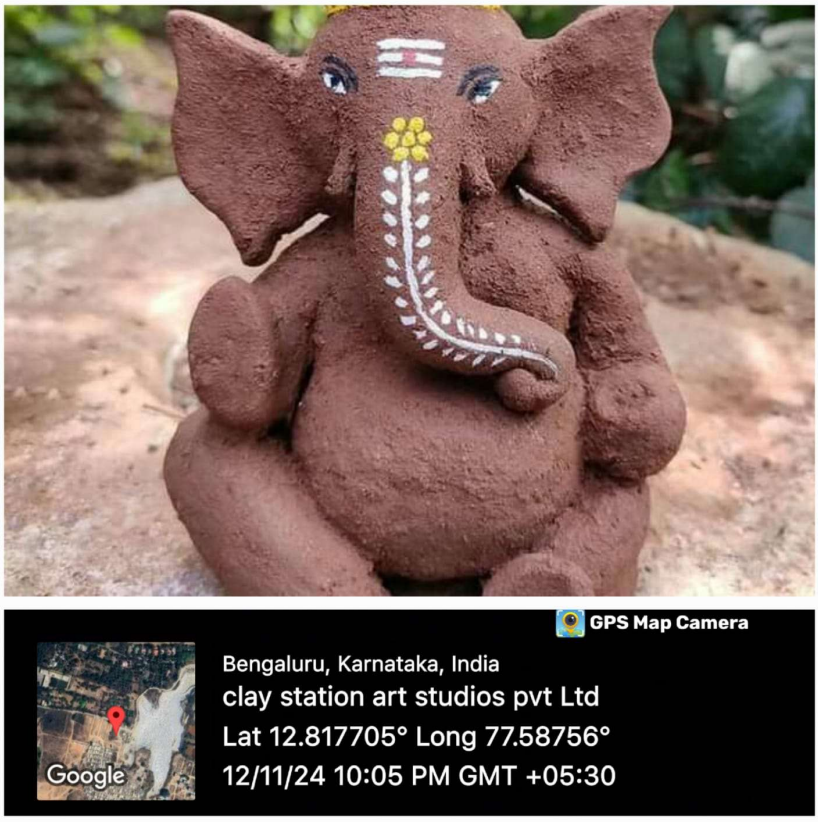
One day I went with my friends to visit Adiyogi in chikkaballapur. Taxis are available from Bengaluru to the sadhguru sannidhi. Regular bus services also operate between Bengaluru and chikkaballapur town, as well as between chikkaballapur town and sannidhi. We reached the sannidhi by bus. In the temple yoga Sandhya is the powerful 40 minutes program which is an opportunity for us and also offering of sacred water from Kailash to yogeshwar linga and vilva leaves to yogeshwar linga for overall wellbeing. At last we enjoyed every single moment in the sannidhi and finally at 7.00 PM we eagerly waited for light show.

Adiyogi Divya Darshanam is a powerful video imaging show that is projected on the iconic adiyogi. A spectacular visual treat, it also features sadhguru narrating the story of Adiyogi and how the science of yoga was offer.

There was not too much traffic, it being a Sunday and hence we managed to coast along quickly till Devanahalli. Post that we started to refer Google Maps to ensure we stay on trac.k and followed the map. The roads are excellent except for the last 3 to 4 kms where it is fully mud roads and we need to pass through multiple quarry type of areas. Mode of transport was BHPian Amyth's Fluidic Verna and no it did not bottom out anywhere during the entire trip
- so that should inspire confidence among people planning to visit this place on Sedans.

One needs to take a left turn from NH44 which is now labelled as Isha Foundation Cross to head towards Isha. Until that moment we did not realize anything about the volume of visitors that may have come - the moment we turned we realized all the cars ahead of us were heading towards the same
destination. Looks like this has become a popular visitor attraction as of now

CRAFTS CORNER



Craft is a celebration of skill, precision, and the artistry inherent in creating objects with one's hands. It encompasses a wide range of disciplines, from traditional practices passed down through generations to modern, innovative expressions. Unlike art, which often explores abstract concepts and emotions, craft places a strong emphasis on tangible results, functionality, and the mastery of specific techniques. Craft encompasses a rich tapestry of creative expression, craftsmanship, and cultural heritage, reflecting the ingenuity, imagination, and cultural identity of individuals and communities across the globe.

On 25th February 2024 I visited Rangoli garden with my friends and It was a great way to learn some rural history and culture on our trip. Unique and well down re-creation of authentic village life in rural India. This place is definitely more than worth visiting with family and friends. It is agarden where one can spent whole day to see the detailing of craftsmanship of a real life we all lived and one can relate to his own life. Amazing place, spreaded in big acre. Starting from entrance and every detailed of the sculpture the way the artist have designed beautifully. Rangoli garden is not an experience of olden days it is a golden days

CONCLUSION

The Heritage Walk and Craft Corners offer more than just a journey through the past; they embody a celebration of cultural richness and creativity. The Heritage Walk, with its winding paths and historical landmarks, serves as a poignant reminder of our shared history, fostering a deeper connection to the roots that have shaped our communities. As participants traverse through time-honored streets and explore architectural marvels, they embark on a transformative experience, immersing themselves in the stories embedded within the city's walls.They form a harmonious tapestry of cultural preservation and innovation. They beckon individuals to engage with their heritage actively, fostering a sense of pride and responsibility. These initiatives not only preserve the authenticity of our cultural narratives but also provide platforms for local artisans to thrive, ensuring that traditional crafts continue to be valued and sustained.

Report on

Module -3

"Organic Framing and Waste Management"

Student Involved: Prajwal M (1AM23IS115))

Under The Guidance of

Mrs. Swathi Srikanth Achanur

Assistant Professor

Department of AIML, AMCEC

Description of the Activity:

- Waste management is the systematic process of collecting, transporting, processing, recycling, and disposing of waste materials in an environmentally responsible and sustainable manner.
- The primary goal of waste management is to minimize the adverse impact of waste on public health and the environment while maximizing the efficient use of resources.
- Involves the gathering of waste from residential, commercial, and industrial sources.
- Utilizes various containers for different types of waste (recyclables, organic, non-recyclables) to facilitate proper sorting.
- Effective waste management is critical for environmental protection, resource conservation, and the overall well-being of communities.

INTRODUCTION

ORGANIC FARMING

Organic farming, also known as ecological farming or biological farming, is an agricultural system that uses fertilizers of organic origin such as compost manure, green manure, and bone meal and places emphasis on techniques such as crop rotation and companion planting. It is more than just a method of cultivation; it's a philosophy that emphasizes sustainability, environmental protection, and the well-being of both the soil and the people involved in the farming process. Organic standards are designed to allow the use of naturally-occurring substances while prohibiting or strictly limiting synthetic substances. For instance, naturally-occurring pesticides such as pyrethrin are permitted, while synthetic fertilizers and pesticides are generally prohibited. Organic farming represents a holistic and environmentally responsible approach to agriculture that seeks to balance economic viability with social and ecological considerations. It offers numerous benefits, including healthier food, improved soil and water quality, enhanced biodiversity, and reduced environmental impact.

BENEFITS OF ORGANIC FARMING

No synthetic pesticides or fertilizers: Organic farming relies on natural methods for pest control and fertilization. This helps avoid the negative environmental impact associated with synthetic chemicals.

Crop rotation and diversity: Organic farmers often practice crop rotation and intercropping, which enhances soil fertility, reduces the risk of pests and diseases, and promotes biodiversity.

Soil health: Organic farming prioritizes soil health through the use of organic matter, cover cropping, and composting. Healthy soil leads to better nutrient absorption by plants and improved water retention.

No genetically modified organisms (GMOs): Organic farming prohibits the use of genetically modified seeds. This ensures that crops are grown in a more natural and traditional manner.

Animal welfare: Organic farming standards often include guidelines for the humane treatment of animals. Livestock are given access to outdoor spaces and are raised without the routine use of antibiotics and growth hormones.

Reduced environmental impact: By avoiding synthetic chemicals and promoting sustainable practices, organic farming minimizes water pollution, soil erosion, and the overall environmental impact associated with conventional agriculture.

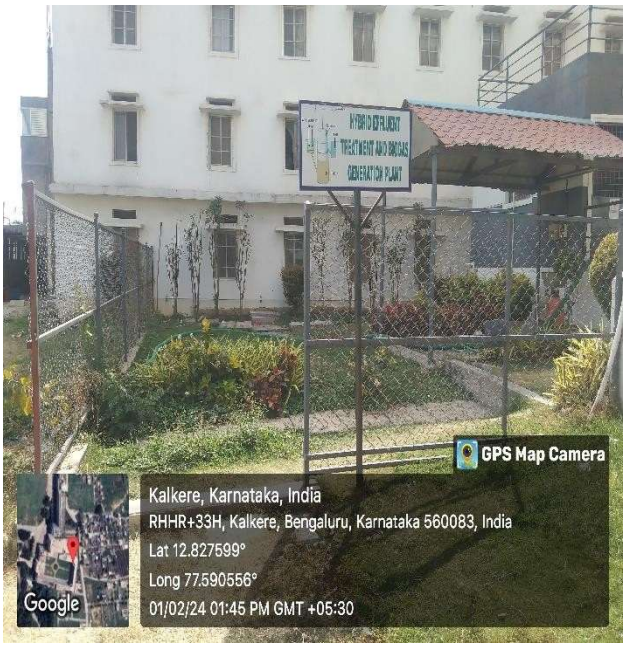
Health benefits: Organic produce is grown without synthetic pesticides and fertilizers, reducing the risk of chemical residues in food. Many people choose organic products for potential health benefits and a belief in promoting a cleaner and healthier food supply.

Biodiversity conservation: Organic farming supports biodiversity by providing habitat for beneficial insects, birds, and other wildlife. Crop diversity, hedgerows, and buffer zones on organic farms promote ecological balance and reduce the need for chemical pest control.

WASTE MANAGEMENT

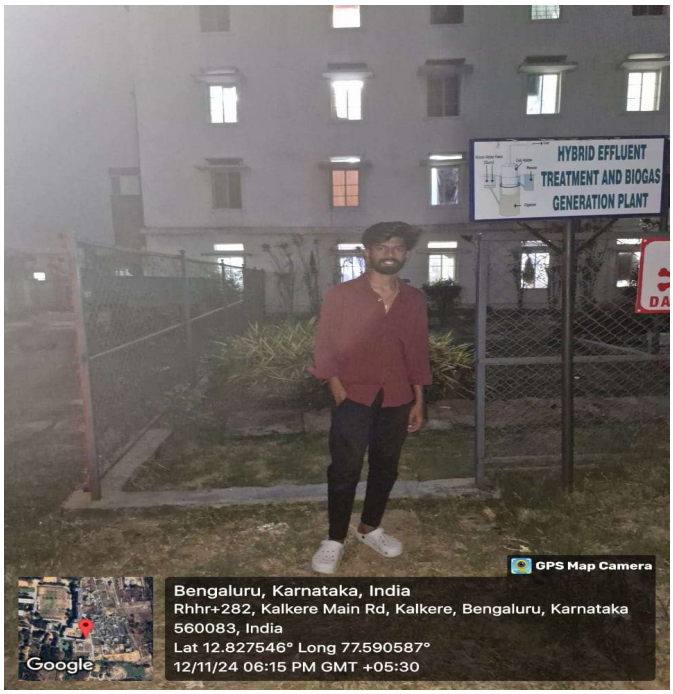
In the wake of rapid urbanization and population growth, the management of waste has emerged as a critical and multifaceted challenge that demands immediate attention. Waste, in its various forms, has become an unavoidable byproduct of modern living, presenting both environmental and health concerns on a global scale. As cities expand and consumption patterns evolve, the sheer volume and diversity of waste generated have necessitated innovative and sustainable approaches to waste management.

It is a collective endeavor that requires collaboration between governments, industries, and the general public. Awareness campaigns, education initiatives, and policy frameworks play pivotal roles in fostering a culture of responsible waste management. The integration of circular economy principles, emphasizing resource efficiency and closed-loop systems, further underscores the transformative potential of sustainable waste management practices. Moreover, waste management extends beyond the boundaries of individual responsibility; it is a collective endeavor that requires collaboration between governments, industries, and the general public. Awareness campaigns, education initiatives, and policy frameworks play pivotal roles in fostering a culture of responsible waste management. Effective waste management requires a comprehensive and integrated approach that addresses waste generation, collection, treatment, recycling, and disposal while promoting sustainability, resource efficiency, and environmental protection. Collaboration among government agencies, businesses, communities, and individuals is essential for achieving sustainable waste management solutions and building a circular economy that minimizes waste and maximizes resource recovery.



WASTE MANAGEMENT SYSTEM IN OUR COLLEGE

Hybrid Effluent Treatment and Biogas Generation Plant



The Biogas Generation Plant in the college is an important aspect of waste mangement.This proposal outline the development and implementation of a state-of-the-art Hybrid Effluent Treatment and BiogasGenration Plant.The facility aims to address environmental concernsvassociated with industrial effluents while harnessing potential for renewable energy through biogas production.The integration of these two processes will not contibute to sustainable waste management but also provide a clean energy source for the commity

Hybrid Plant Components:

Effluent Treatment: Implement advanced effluent treatment technologies, including biological, chemical, and physical processes, to ensure the removal of pollutants and adherence to environment standards.

Biogas Generation: Utilize anaerobic digestion of organic waste, such as food and agricultural residues, to produce biogas. The biogas can be converted into electricity or utilized for heating purposes, contributing to the local energy grid.

Environmental and Social Impact:

Pollution Mitigation: The Hybrid Plant will significantly reduce the environmental impact of industrial effluents by treating and purifying them before discharge.

Renewable Energy: Biogas generation will contribute to the local energy supply, reducing dependence on non-renewable sources and lowering carbon emissions.

Employment Opportunities: The construction and operation of the Hybrid Plant will create job opportunities, contributing to the local economy.

Technological Innovation:

Advanced Monitoring Systems: Implement cutting-edge monitoring systems to ensure real-time data collection for both effluent treatment and biogas generation processes.

Automation: Incorporate automation and control systems for optimal plant performance and resource utilization.

ADVANTAGES OF BIOGAS

- Biogas is a renewable, as well as a clean, source of energy.
- Biogas generation reduces soil and water pollution.
- The by-product of the biogas generation process is enriched organic digestate, which is a perfect supplement to, or substitute for, chemical fertilizers.
- The technology used to produce biogas is quite cheap. It is easy to set up and needs little investment when used on a small scale.
- Biogas is also a healthy cooking alternative.
- Biogas production diverts organic waste from landfills and incinerators, reducing the volume of waste sent to disposal facilities and mitigating environmental pollution.
- Biogas production facilities can help mitigate odor issues at agricultural operations, wastewater treatment plants, and food processing facilities.
- Biogas production contributes to income generation for farmers and rural communities, fostering economic growth and resilience.
- Biogas production facilities can engage local communities through educational programs, outreach initiatives, and collaborative partnerships, fostering community involvement and support.

CONCLUSION

Effective waste management is crucial for the well-being of our environment and communities. It involves the proper collection, disposal, and recycling of waste to minimize its impact on ecosystems and human health. Adopting sustainable waste management practices can significantly reduce pollution, conserve resources, and mitigate the negative effects of improper waste disposal. A holistic and sustainable approach to waste management is essential for creating a cleaner, healthier, and more sustainable future for our planet. It requires collaboration between individuals, communities, businesses, and governments to address the challenges posed by increasing waste generation and create a circular economy where resources are efficiently used and reused.