

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**JNANA SANGAMA, BELAGAVI - 590018, KARNATAKA**



A Report On

**“Social Connect and Responsibility”**

Submitted in partial fulfillment of the requirements for the III Semester of  
**Bachelor of Engineering in Computer Science and Engineering - Artificial Intelligence & Machine Learning (CSE-AIML)** of  
Visvesvaraya Technological University, Belagavi

Submitted by

**Manvith H Shetty (1AM23CI079)**

Under Guidance of

**Mrs.AMBILI**

Assitant Professor

Dept. Computer Science and Engineering - Artificial Intelligence & Machine Learning  
(CSE-AIML)



**Department of Computer Science & Engineering -Artificial Intelligence and Machine Learning (CSE-AIML)**  
**AMC ENGINEERING COLLEGE**  
18 Km, Bannerghatta Road, Bangalore - 560083

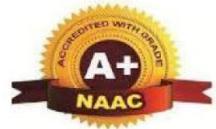
**2024-25**





# AMC ENGINEERING COLLEGE

18 Km, Bannerghatta Road, Bangalore-560083



## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING – ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING (CSE-AIML)



### CERTIFICATE

This is to certify that **Manvith H Shetty(1AM23CI079)**, 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 Computer Science and Engineering - Artificial Intelligence & Machine Learning (CSE-AIML) of Visvesvaraya Technological University, Belagavi** during academic year 2024- 2025. It is certified that all corrections/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.

**Dr. Nandeeshwar S B**

Professor and HOD

Department of CSE-AIML, AMCEC

**Dr. K. Kumar**

Principal

AMCEC

**Mr. L Sreenivasa Perual**

Assistant Professor

Department of CSE-AIML, AMCEC

**Mrs. Ambili K**

Professor – CSE AIML

AMCEC

**Dr. Umashankar L**

NSS Program Officer

Associate Professor

Department of ME,  
AMCEC

## **DECLARATION**

I, **Manvith H Shetty (1AM23CI079)** student of 3rd semester Bachelor of Engineering at the Department of Computer Science and Engineering - Artificial Intelligence & Machine Learning (CSE-AIML), 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 fulfillment of the course requirement for the award of degree in Bachelor of Engineering in Computer Science and Engineering - Artificial Intelligence & Machine Learning (CSE-AIML) 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 on an earlier occasion on this by any other student.

**Place: Bengaluru**

**Manvith H Shetty**

**Date:**

**1AM23CI079**

## **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 **Mrs. AMBILI , Assistant Professor, Department of CSE-AIML**, AMC Engineering College, Bangalore for her unfailing encouragement and suggestions, given to me in the course of my activity work.

I would like to extend my special thanks to **Dr. Nandeeswar S B, Professor & HOD, Department of CSE-AIML** for his immense 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 Computer Science and Engineering - Artificial Intelligence & Machine Learning (CSE-AIML) for their encouragement and support.

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

**Place: Bengaluru**

**Mamwith H Shetty**

**Date:**

**1AM23CI079**

## **Table of Contents**

<b>SL.NO</b>	<b>TITLE</b>	<b>PAGE NO.</b>
1.	Module 1 Activity – Plantation and Adoption of trees	6-12
2.	Module 2 Activity – Heritage Walk and Crafts Corner	13-25
3.	Module 3 Activity – Organic Farming and Waste Management	26-33
4.	Module 4 Activity – Water Conservation	34-40
5.	Module 5 Activity – Food Walk	41-46



**AMC**  
ENGINEERING COLLEGE  
BENGALURU



**Report on**  
**Module -1**  
**"Plantation and Adoption of trees"**

**Student Involved: Manvith H Shetty (1AM23CI079)**

**Under The Guidance of**  
**Mrs. AMBILI**  
**Assistant Professor**  
**Department of CSE-AIML, AMCEC**

**Description of the Activity:**

- Support environmental restoration and promote biodiversity.
- Address climate change by leveraging trees as natural carbon sinks.
- Enhance air quality by filtering pollutants and releasing oxygen.
- Offer students hands-on opportunities for environmental education.
- Improve community well-being by developing lush green spaces.
- Advocate for sustainability through structured tree adoption initiatives.
- Protect wildlife habitats to maintain biodiversity and ecological harmony.
- Beautify the area while creating spaces for recreation and relaxation.
- Aid water conservation efforts by reducing runoff and preventing soil erosion.
- Promote community collaboration and collective responsibility for conserving the environment.

## **INTRODUCTION**



Trees stand as the silent, towering guardians of our planet, offering an array of essential benefits that impact every facet of life. Their importance transcends the beauty they bring to landscapes, extending into environmental, social, and psychological dimensions. Planting trees serves as a straightforward yet powerful strategy to combat climate change, as they absorb carbon dioxide during photosynthesis and store it in their biomass. Moreover, tree planting plays a vital role in restoring ecosystems degraded by human activities such as deforestation, urbanization, and agriculture. This initiative can be undertaken by individuals, organizations, and governments across diverse settings, including urban spaces, rural areas, and forests. Ensuring the successful growth and survival of trees requires proper care and maintenance, including regular watering, pruning, and protection from pests and diseases. By committing to these practices, we can harness the unparalleled benefits trees offer to our environment and communities.

## **PLANT ORIGIN**

### **SCIENTIFIC CLASSIFICATION**



kingdom : Plantae  
Order : Lamiales  
Family : Lamiaceae  
Genus : Ocimum  
Species : O.tenuiflorum

Ocimum tenuiflorum, commonly known as holy basil, tulsi or tulasi (from Sanskrit), is an aromatic perennial plant in the family Lamiaceae. It is widely cultivated throughout the Southeast Asian tropics. It is native to tropical and subtropical regions of Asia, Australia and the western Pacific. This plant has escaped from cultivation and has naturalized in many tropical regions of the Americas. It is an agricultural and environmental weed.

Tulasi is cultivated for religious and traditional medicine purposes, and also for its essential oil. It is widely used as an herbal tea, commonly used in Ayurveda, and has a place within the Vaishnava tradition of Hinduism, in which devotees perform worship involving holy basil plants or leaves.

## **IMPORTANCE OF TULASI**

Here are some of the benefits of Tulasi :

### **Boost immunity:**

Tulsi has abundant amounts of antioxidants and micronutrients that help fight common ailments like cold, flu, fever, asthma, etc. Chewing Tulsi leaves or drinking water boiled with Tulsi proves useful in relieving the symptoms of sore throat and cold. Moreover, Tulsi leaf benefits include curbing the growth of some cancer-causing cells and HIV cells, thus preventing life-threatening illnesses.

### **Heals infections:**

For centuries, Tulsi has been used in curing wounds and infections owing to the combination of antiviral, antifungal, antibacterial, and antifungal properties in the plant. It also has anti-inflammatory properties that help in reducing inflammation and healing wounds quickly.

### **Purifies the Blood:**

The sacred plant is also known to purify the blood, reflecting healthy skin. Also, Tulsi tea benefits can work wonders for one's overall health by flushing out toxins and cleansing the digestive system. The benefits of drinking Tulsi water are also plenty if we consume it regularly.

### **Cures insect Bites:**

Some skin infections, such as ringworm or insect bites, can be treated easily using fresh Tulsi leaves. Apply the juice of Tulsi leaves on the affected area. Holy basil has natural analgesic qualities and helps control inflammation and pain.

### **Treats respiratory disorders:**

The polluted environment takes a toll on the lungs' health, resulting in respiratory problems like asthma and bronchitis. Tulsi acts effectively on the respiratory system. Also, steam inhalation with Tulsi leaves benefits in clearing the congestion.

### **Maintains Blood sugar level:**

People having Type-2 diabetes can immensely benefit from Tulsi leaves. The ancient herb proves beneficial in not only regulating blood glucose levels and reduce the damaging effects. That is, consuming Tulsi in any form will improve the metabolism process and help the body process carbohydrates and fats.

## ADOPTION OF THE PLANT

On 23rd December 2024 , I went with my friends to visit. Indo American Hybrid Seeds,located in channasandra,srinivasapura, Bengaluru, Karnataka. I went there to adopt a plant. I adopted a plant and the name of the plant was “TULASI”.

Ocimum tenuiflorum, commonly known as holy basil, tulasi (from Sanskrit), is an aromatic perennial plant in the family Lamiaceae. It is widely cultivated throughout the Southeast Asian tropics. It is native to tropical and subtropical regions of Asia, Australia and the western Pacific. This plant has escaped from cultivation and has naturalized in many tropical regions of the Americas .It is an agricultural and environmental weed..



From now on, 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 adopting the plant.





## **CONCLUSION**

Planting trees and adopting plants, like marigolds, is essential for addressing environmental challenges and improving the quality of life for people. Marigolds, known for their vibrant blooms and ease of cultivation, contribute to beautifying spaces and promoting biodiversity. Additionally, marigolds are known to have pest-repellent properties, making them beneficial for gardens and surrounding ecosystems.

In terms of their medicinal properties, marigolds are rich in compounds such as flavonoids, carotenoids, and essential oils, which have been studied for their antioxidant, anti-inflammatory, and antimicrobial effects. These compounds contribute to the plant's therapeutic potential. Although the antioxidant activity of marigold flowers has been explored in some studies, further research is needed to isolate and identify the specific active compounds responsible for their medicinal properties.

The findings from these studies suggest that marigolds could play a significant role in natural remedies, promoting health and wellness. Future work will focus on isolating and identifying the compounds in TULASI that contribute to its therapeutic benefits, as well as further exploring its role in supporting environmental and ecological balance



**AMC**  
ENGINEERING COLLEGE  
BENGALURU



**Report on**

**Module -2**

**“Heritage Walk and Crafts Corner”**

**Student Involved: Manvith H Shetty (1AM23CI079)**

**Under The Guidance of**

**Mrs. AMBILI**

**Assistant Professor**

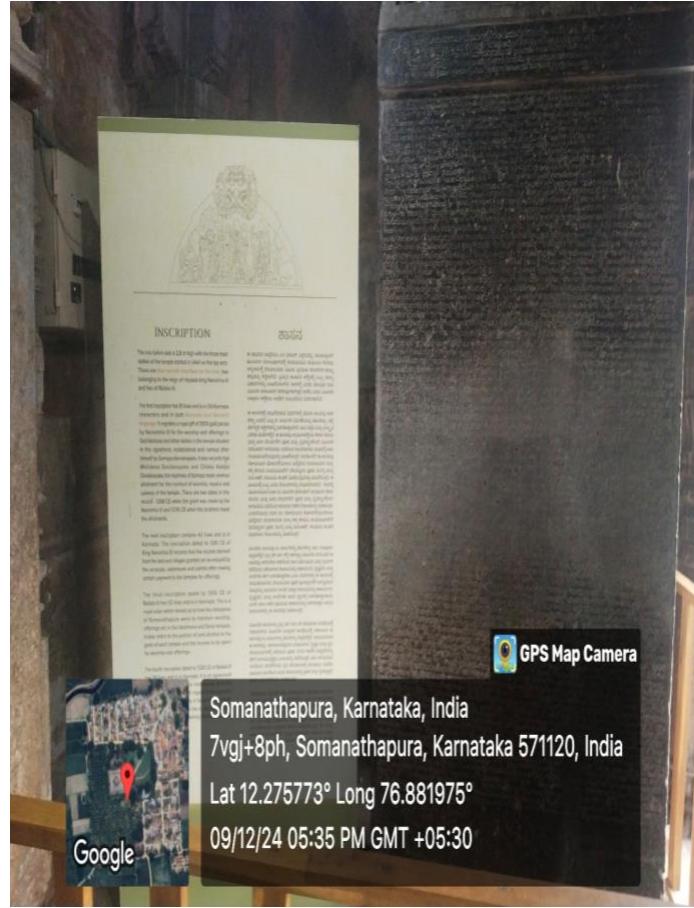
**Department of CSE-AIML, AMCEC**

**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

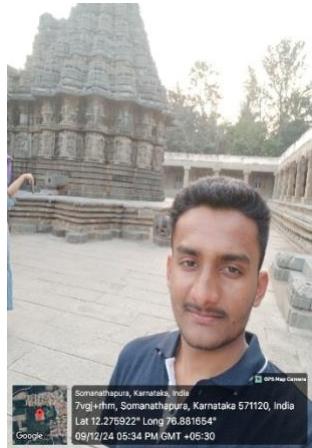
## (SOMANATHAPURA)



"Heritage" refers to the cultural, historical, and natural legacy inherited from past generations. It includes both tangible and intangible elements that hold meaning and importance for a particular community, society, or civilization.

Heritage serves as a means to uncover and appreciate the often overlooked and neglected richness of a country. The value of heritage is multi-dimensional, impacting cultural, historical, social, and economic aspects. Some key points that emphasize the significance of heritage include: cultural identity, historical continuity, tourism and economic benefits, educational value, and much more.

## **HERITAGE SITE**



Chennakesava Temple, also referred to as Chennakeshava Temple and Keshava Temple, is a Vaishnava Hindu temple on the banks of River Kaveri at Somanathapura, Mysuru, Karnataka,

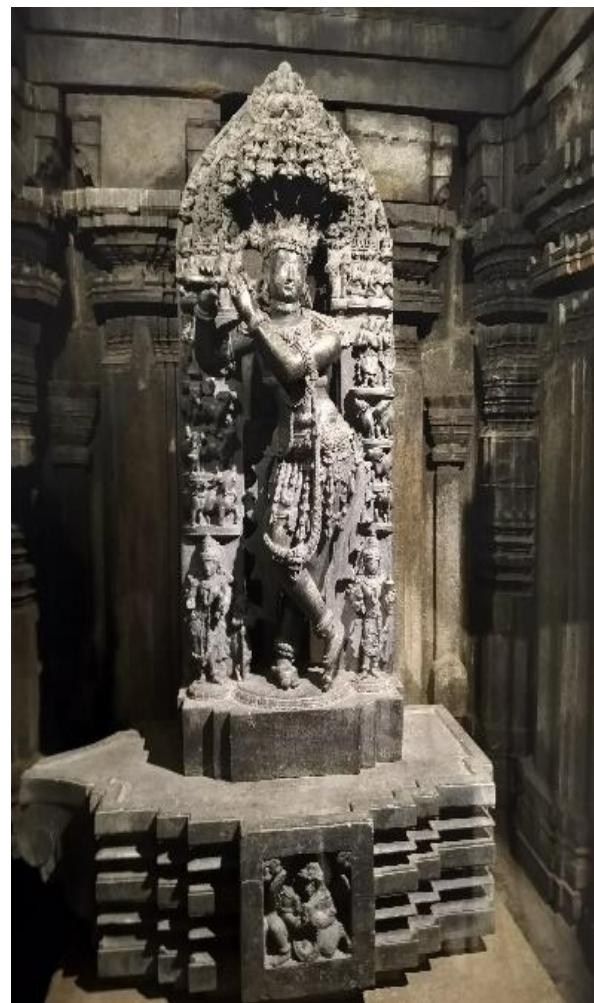
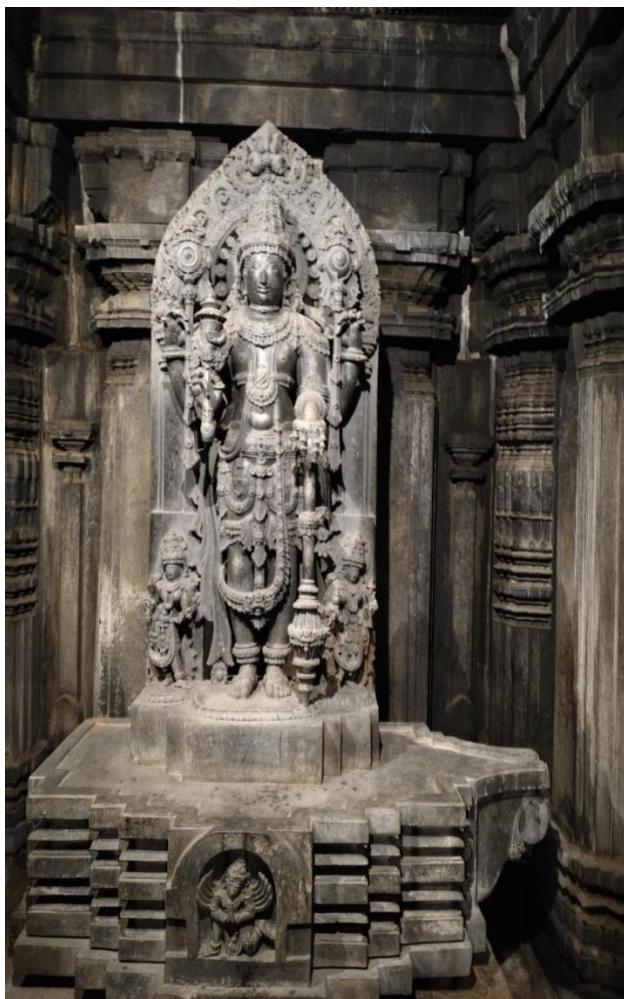
India. The temple was consecrated in 1258 CE by Somanatha Dandanayaka, a general of the Hoysala King Narasimha III. It is located 38 kilometres (24 mi) east of Mysuru city.

The ornate temple is a model illustration of the Hoysala architecture. The temple is enclosed in a courtyard with a pillared corridor of small shrines (damaged). The main temple in the center is on a high star-shaped platform with three symmetrical sanctums (garbha-griha), set in a square matrix (89' x 89') oriented along the east–west and north–south axes. The western sanctum was for a statue of Kesava (missing), the northern sanctum of Janardhana and the southern sanctum of Venugopala, all forms of Vishnu. The sanctums share a common community hall (sabha-mandapa) with many pillars. The outer walls, the inner walls, the pillars and the ceiling of the temple are intricately carved with theological iconography of Hinduism and display extensive friezes of Hindu texts such as the Ramayana (southern section), the Mahabharata (northern section) and the Bhagavata Purana (western section of the main temple).



One day I went with my friends to visit chennakesava temple in somanathapura. Taxis are available from Bengaluru to somanathapura. We reached the somanathapura by bus. A fantastic temple with some amazing carvings. located in a beautiful little village in the heart of rural karnataka.

It has fine art and work ,inside and outside of the temple. just we can imagine how long it to be build and how many years and workers masters to plan and complete this master art, and it is most beautiful heritage site.so soulful inside the temple as it has less crowd.no pooja takes place as temple is plundered and desecrated but we can see the idols through the grills. This is a trikutachalam temple where there are 3 garbhagrihas for kesava,janardhana,venugopala.one should definitely visit here.



## SHIVANASAMUDRA



**Shivanasamudra** is a popular waterfall on river Kaveri, located in Chamarajanara district, bordering Mandya district. Shivanasamudra is a must visit post monsoon season for the visual treat it offers.

Shivanasamudra consists of two waterfalls- Gagana Chukki and Bhara Chukki. Though part of the same Kaveri river, the viewpoints to observe Gagana Chukki and Bhara Chukki are about 15 kms apart. Well maintained viewing deck is available to witness Gagana Chukki and Bharachukki waterfalls. River water dropping of tall rock cliffs, with lush green forests all around ensures a mesmerizing view and photographer's delight.

**Timing:** Shivanasamudra waterfalls can be visited between 8 AM and 5 PM on all days.

Shivanasamudra is 133 kms from Bengaluru and 78 kms from Mysuru. Mysuru is the nearest airport and railway station. Public transportation is available till the village of Malavalli, 30 kms from Shivanasamudra. From Malavalli (or Mandya/Maddur or Mysuru cities) taxis can be hired to reach Shivanasamudra .

**Gaganachukki Waterfall:** Situated a little further from Barachukki ,this water fall is renowned for its powerful thundering water spectacular sight ,especially during the monsoon season.

**Barachukki waterfall:** This is the larger of the two falls and is known for its serene beauty. The water flows in a wide ,graceful cascade, making it a perfect for photography and relaxation.

The Falls Viewpoint was absolutely breathtaking! During the rain.

The lush greenery surrounding the falls adds to the beauty, making it a perfect spot for nature lovers. It's an unforgettable experience to witness the sheer power and elegance of the falls during the monsoon...!





On 9th December 2024, I had the opportunity to go on a day trip with my entire CSE-AIML department. We traveled in four buses and started our journey early in the morning. Our first stop was for breakfast, where we took a break and enjoyed a hearty meal before continuing our journey. Our next destination was Shivanasamudra Falls. The breathtaking sight of the waterfalls surrounded by dense greenery was amazing. We spent some time there, taking in the view and snapping pictures. After enjoying the falls, we moved on to our next destination.

Next, we traveled to Talakadu, where we had lunch before exploring the town. I had the chance to go boating and horse riding, which was a lot of fun. We also tried some local snacks, including goli soda, which added to the experience. A local guide explained the fascinating history of



Mysuru, Karnataka, India  
Talakadu, Karnataka 571122, India  
Lat 12.173332° Long 77.026346°  
09/12/24 02:25 PM GMT +05:30

Talakadu, particularly the curse that is said to have affected the town. The sand dunes around the temples and the peaceful surroundings made the visit even more memorable. The atmosphere on the buses was lively as well, with everyone dancing and enjoying the trip. After our visit, we were given snacks before leaving for our final destination.

Our last stop was Somanathapura, where we reached just before closing time. Although we had to rush, we managed to visit the Keshava Temple and appreciate the detailed carvings and intricate architecture. It was amazing to see such a well-preserved monument of historical and cultural significance. After our visit, we boarded the buses for our return journey to AMC Engineering College, reaching back around 8:30 PM via the Kanakapura-Malavalli road.

The entire trip was an enriching experience. I enjoyed spending time with my friends and classmates while exploring the cultural and historical gems of Karnataka. The trip was both educational and fun, filled with beautiful landscapes, ancient architecture, and cherished memories.

## **CRAFTS CORNER**



Mysuru, Karnataka, India  
Talakadu, Karnataka 571122, India  
Lat 12.173332° Long 77.026346°  
21/12/24 10:37 PM GMT +05:30

GPS Map Camera

Craft is a celebration of skill, precision, and the artistry involved in making objects by hand. It covers a broad spectrum of disciplines, from age-old traditions passed down through generations to contemporary, innovative forms. Unlike art, which often delves into abstract ideas and emotions, craft focuses on tangible outcomes, practicality, and mastery of specific techniques. It represents a rich blend of creative expression, craftsmanship, and cultural heritage, highlighting the ingenuity, imagination, and cultural identity of people and communities worldwide. This concept extends beyond everyday objects to include the architectural structures that have stood the test of time, where the fine details and careful design reflect the cultural and functional essence of their creators.

## TALAKADU

### Talakadu is a Hub of Heritage and Craftsmanship



**Introduction:** Talakadu, a historic town located on the banks of the Kaveri River in Karnataka, is not only renowned for its ancient temples and landscapes but also for its vibrant traditional crafts. A perfect blend of religion, culture, and art, Talakadu offers a unique experience for visitors, allowing them to explore the region's rich artistic heritage. The craft corner of Talakadu is a must-visit for those looking to experience local crafts. While also immersing themselves in the area's spiritual and historical significance.

**The Maleshwara Temple:** A symbol of ancient architecture, Talakadu is home to several iconic temples, including the Maleshwara Temple, dedicated to Lord Shiva. This temple, dating back to the Chola period, is a fine example of Dravidian architecture with its intricate carvings and grand structure. The temple is a part of the group of temples that earned Talakadu the title of "TEMPLE TOWN" reflecting its historical importance in the religious landscape of Karnataka.

### Traditional crafts of Talakadu:

**Wood Carving:** Talakadu is known for its intricate wood carving, particularly in temple architecture. Skilled artisans carve detailed motifs, depictions of gods and goddesses, and floral designs into wooden panels, doors, and windows.

**Stone Sculpting:** The region's proximity to historic temples, especially the ones built during the Chola and Vijayanagara periods, has fostered a tradition of stone sculpting. Artisans craft stone idols, figurines, and other decorative items, reflecting the town's ancient spiritual and artistic significance.

**Handloom Weaving:** While not as widely known as other handloom regions in Karnataka, the weavers in Talakadu make traditional cotton and silk textiles, which are used for making sarees, towels, and other items. These textiles often feature simple geometric patterns and floral designs.

**Metal Crafting:** The making of brass and copper items such as decorative pieces, lamps, and utensils is another traditional craft of Talakadu. These metal crafts are often used in religious Ceremonies and festivals.



**Pottery:** Talakadu's pottery is known for its simple yet functional designs. Local potters create earthenware like pots, vessels, and storage jars using traditional methods passed down through generations

## **CONCLUSION**

The Heritage Walk and Craft Corners offer much more than a glimpse into the past; they celebrate the richness of culture and creativity. The Heritage Walk, with its meandering paths and historical landmarks, serves as a powerful reminder of our collective history, allowing us to connect with the foundations that have shaped our communities. As visitors journey through time-honored streets and explore architectural masterpieces, they are immersed in the stories that echo within the city's walls. Together, these experiences weave a seamless blend of cultural preservation and innovation. They encourage individuals to actively engage with their heritage, instilling a sense of pride and responsibility. These initiatives not only protect the authenticity of our cultural narratives but also create opportunities for local artisans, ensuring that traditional crafts continue to be cherished and passed down through generations.



**AMC**  
ENGINEERING COLLEGE  
BENGALURU



**Report on**

**Module -3**

**“Organic Farming and Waste Management”**

**Student Involved: Manvith H Shetty (1AM23CI079)**

**Under The Guidance of**

**Mrs. AMBILI**

**Assistant Professor**

**Department of CSE-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 and waste management are two interrelated practices that focus on sustainability, environmental preservation, and resource conservation. Organic farming emphasizes the use of natural fertilizers, crop rotations, and sustainable techniques to cultivate healthy produce while maintaining soil fertility and ecosystem balance. Waste management in organic farming involves minimizing waste generation, recycling organic materials, and composting to enrich the soil.

By adopting eco-friendly practices, organic farming reduces the dependence on synthetic chemicals, which can negatively impact the environment. Waste management techniques such as composting, mulching, and reusing plant residues help close the loop in farming systems, transforming waste into valuable resources. This integrated approach not only benefits the farm's ecosystem but also supports the broader goal of reducing pollution, conserving resources, and promoting a circular economy in agriculture.

## ORGANIC FARMING

Organic farming, also referred to as ecological or biological farming, is an agricultural system that relies on organic fertilizers like compost manure, green manure, and bone meal, and emphasizes methods such as crop rotation and companion planting. It goes beyond being just a cultivation technique; it represents a philosophy focused on sustainability, environmental protection, and the well-being of both the soil and the people involved in farming. Organic standards promote the use of naturally occurring substances while restricting or limiting synthetic chemicals. For example, natural pesticides like pyrethrin are allowed, while synthetic fertilizers and pesticides are generally prohibited. Organic farming offers a holistic and eco-friendly approach to agriculture, aiming to balance economic viability with social and environmental considerations. Its benefits include healthier food, improved soil and water quality, increased biodiversity, and a reduced environmental footprint.



## **BENEFITS OF ORGANIC FARMING**

**Environmental Impact:** Organic farming avoids synthetic pesticides and fertilizers, reducing harmful environmental effects like soil erosion and water pollution. Practices like crop rotation and composting help maintain soil health and promote biodiversity.

**Healthier Food:** By eliminating synthetic chemicals, organic farming minimizes pesticide residues in food, offering a healthier, more natural food supply.

**Sustainability:** Organic methods promote long-term soil health and ecosystem balance, ensuring the sustainability of farming practices for future generations.

**Animal Welfare:** Organic farming standards ensure humane treatment of livestock, providing outdoor access and eliminating routine use of antibiotics and growth hormones.

**Biodiversity:** Organic farming enhances biodiversity by creating habitats for beneficial insects and wildlife, reducing the need for chemical pest control.



## **WASTE MANAGEMENT**

The rapid pace of urbanization and population growth has made waste management an increasingly urgent and complex issue, demanding immediate action. Waste, in its various forms, has become an inevitable byproduct of modern life, posing significant environmental and health challenges globally. As cities grow and consumption patterns shift, the volume and variety of waste generated have called for innovative and sustainable waste management strategies.

Effective waste management is a shared responsibility, requiring cooperation among governments, industries, and the public. Awareness campaigns, educational programs, and supportive policies are essential to cultivating a culture of responsible waste management. The adoption of circular economy principles, which focus on resource efficiency and closed-loop systems, highlights the transformative potential of sustainable waste practices. Waste management extends beyond individual actions and involves a collective effort. It requires a comprehensive approach that encompasses waste generation, collection, treatment, recycling, and disposal, all while prioritizing environmental sustainability, resource conservation, and protection. Achieving sustainable waste management and fostering a circular economy depends on collaboration among government agencies, businesses, communities, and individuals to minimize waste and maximize resource recovery.



# **WASTE MANAGEMENT SYSTEM IN OUR COLLEGE**

## **Hybrid Effluent Treatment and Biogas Generation Plant**



The Biogas Generation Plant at the college plays a crucial role in waste management. This proposal outlines the creation and operation of an advanced Hybrid Effluent Treatment and Biogas Generation Plant, designed to tackle the environmental challenges posed by industrial effluents while harnessing renewable energy through biogas production. By integrating these two processes, the plant aims to contribute significantly to sustainable waste management practices while also providing a clean and eco-friendly energy source for the community. This initiative represents a step forward in addressing both waste disposal and energy generation in a sustainable manner.

### **HYBRID PLANT COMPONENTS:**

- Effluent Treatment: The plant will implement advanced effluent treatment technologies, including biological, chemical, and physical processes, to effectively remove pollutants and meet environmental standards, ensuring clean water discharge.
- Biogas Generation: Organic waste, such as food and agricultural residues, will undergo anaerobic digestion to produce biogas. This biogas can then be converted into electricity or used for heating, contributing to the local energy grid and promoting sustainability.

## **ENVIRONMENTAL & SOCIAL IMPACT:**

- **Pollution Mitigation:** The Hybrid Plant will significantly reduce the environmental impact of industrial effluents by treating and purifying them before they are discharged into the environment, ensuring compliance with environmental norms.
- **Renewable Energy:** By generating biogas, the plant will provide a renewable energy source to the local community, decreasing reliance on non-renewable energy and helping to reduce carbon emissions.
- **Employment Opportunities:** The establishment and operation of the Hybrid Plant will generate various job opportunities, thereby boosting the local economy and providing skill development prospects for the workforce.

## **TECHNOLOGICAL INNOVATION:**

- **Advanced Monitoring Systems:** The plant will integrate state-of-the-art monitoring systems for real-time data collection, ensuring both effluent treatment and biogas generation processes are efficient and effective.
- **Automation:** The incorporation of automated control systems will optimize plant performance, enhancing resource utilization and minimizing operational inefficiencies, ultimately ensuring sustainability and cost-effectiveness.

## **ADVANTAGES OF BIOGAS**

- Biogas is a renewable and clean energy source, reducing reliance on fossil fuels.
- It helps reduce soil and water pollution, offering a sustainable waste management solution.
- The by-product of biogas production, enriched organic digestate, serves as a natural alternative to chemical fertilizers.
- Biogas production is cost-effective and easy to set up, requiring minimal investment, especially on a small scale .
- It diverts organic waste from landfills and incinerators, lowering the environmental impact.
- Biogas facilities can mitigate odour issues in agricultural, wastewater, and food processing operations.

## **CONCLUSION**

Effective waste management is essential for preserving the environment and promoting the well-being of communities. It involves not only the proper collection, disposal, and recycling of waste but also minimizing its environmental and health impacts. By adopting sustainable practices, we can significantly reduce pollution, conserve valuable resources, and prevent the harmful consequences of improper waste disposal. A holistic approach to waste management ensures the protection of ecosystems, supports public health, and contributes to the creation of a cleaner and more sustainable world. This transformation requires collective action from individuals, businesses, communities, and governments. Together, we can tackle the growing challenges of waste generation and contribute to building a circular economy that maximizes resource efficiency, reduces waste, and promotes long-term environmental sustainability. Through innovation, education, and collaboration, we can create a future where waste management not only protects the planet but also fosters economic and social well-being.



**AMC**  
ENGINEERING COLLEGE  
BENGALURU



**Report on**  
**Module -4**  
**“Water Conservation”**

**Student Involved: Manvith H Shetty (1AM23CI079)**

**Under The Guidance of**  
**Mrs. AMBILI**  
**Assistant Professor**  
**Department of CSE-AIML, AMCEC**

**Description of the Activity:**

- Water conservation is the careful management and efficient use of water resources to ensure their sustainable availability for present and future generations.
- This practice involves the responsible use of water in various sectors, such as residential, industrial, agricultural, and environmental, to minimize waste and promote water efficiency.
- Water conservation is essential to address the growing global water crisis, mitigate the impacts of climate change, and protect ecosystems.
- Implementing water-saving measures on individual, community, and institutional levels contributes to the responsible and sustainable management of this precious resource.
- Preserve natural ecosystems, such as wetlands and watersheds, that play a crucial role in maintaining water quality and availability.
- Support initiatives to protect and restore bodies of water, preventing pollution and ensuring sustainable water sources.

## **INTRODUCTION**



Water conservation is the intentional and responsible management of water resources to ensure their sustainable use for both present and future generations. It involves a range of strategies and practices focused on reducing water waste, enhancing water usage efficiency, and protecting natural ecosystems. Water is fundamental to life, sustaining ecosystems and supporting agriculture, industry, and human well-being. However, rising water demand, climate change, and population growth have put immense pressure on freshwater resources worldwide. As a result, there is an increasing need to prioritize water conservation. The core principles of water conservation are based on using water wisely, minimizing wastage, and safeguarding water quality. This includes adopting efficient technologies, implementing water-saving techniques, and fostering awareness and behavioural changes across communities, industries, and individuals to ensure the long-term health and availability of water resources.

## **SIR.M. VISVESVARAYA RAIN WATER HARVESTING THEME PARK**



Water has played a pivotal role in the development of civilizations throughout history. However, with the rise in urban populations and the unsustainable exploitation of freshwater resources, the availability of potable water for human consumption is rapidly depleting. This poses one of the most significant challenges that society will face in the future. The conservation and harvesting of freshwater have thus become crucial measures for ensuring sustainable development.

In Bangalore, the responsibility of meeting the city's drinking water needs falls to the Bangalore Water Supply and Sewerage Board (BWSSB), which has been serving the city since its establishment in 1964. To address the growing demand for water, BWSSB has implemented numerous innovative projects. Notably, the Cauvery Water Supply Scheme (CWSS) was conceived and initiated in 1972 to bring water from the Cauvery River, as Bangalore lacks a perennial natural source of water. This scheme has been expanded in four stages (1982, 1992, 2002, and the latest phases) to meet the increasing population's water requirements.

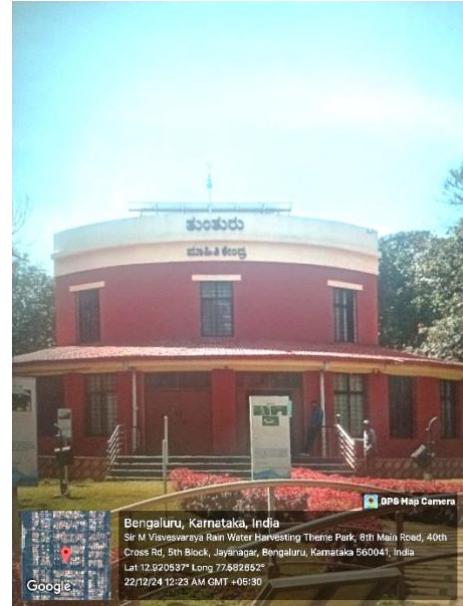
With the city's population expected to reach 110 million by 2025, the demand for water continues to rise, placing immense pressure on existing resources. While groundwater extraction has been a key supplementary source of drinking water, the city has witnessed a significant decline in groundwater levels, accompanied by deteriorating water quality. This underscores the urgent need to adopt strategies like artificial recharge to sustain and replenish these vital groundwater resources, ensuring a reliable and safe water supply for the future.

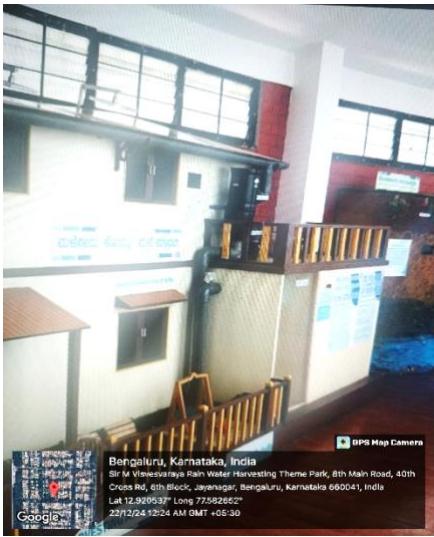
In line with its efforts to promote water conservation, BWSSB has developed the "Rain Water Harvesting Theme Park" in honor of Sir M. Visvesvaraya, situated on a 1.2-acre plot at 40th Cross, 8th Main, 5th Block, Jayanagar. This innovative park showcases 26 different types of rainwater harvesting models, providing both educational demonstrations and practical water conservation tips. These exhibits are spread throughout the grounds, including inside and outside the main building.

On the first floor, an auditorium equipped with a green air-conditioning system has been set up for meetings and presentations. It is also used to screen informative videos about rainwater harvesting (RWH) for both students and the general public. Unlike traditional theme parks, this park is

specifically designed to spread awareness about the importance of water conservation and how individuals can easily adopt rainwater harvesting practices. Situated on a lush 1.5-acre site, it serves as an accessible, informative space dedicated to sustainable water usage.

One of the highlights of the park is its innovative design, which incorporates rainwater harvesting structures such as rooftop catchment systems, recharge wells, and percolation pits. These features not only serve practical purposes but also serve as educational tools to demonstrate how rainwater can be effectively captured and utilized.





The park is aimed at not just educating people on ways to save rainwater but also teaching them how to implement these techniques at home. It could be as simple as digging a hole big enough to hold a tank and opening it out when it rains.

Some of the other techniques may require a plumber's technical expertise but they are mostly very doable. The park also has model toilets and bathrooms that could prove inspirational. Along with the rainwater harvesting models, the park also has small gardens with flowering plants as well as

vegetables and fruit trees. These have been planted not only to beautify the space but also to play a role in harvesting water. There are some plants here that soak up groundwater and others that thrive on minimal watering.

The park offers guided tours, workshops, and educational programs for students, educators, and the general public, aimed at promoting awareness and fostering a culture of water conservation. Visitors can also participate in hands-on activities and simulations to gain practical knowledge about rainwater harvesting techniques and their implementation.

In addition to its educational focus, the Sir M Visvesvaraya Rain Water Harvesting Theme Park provides a tranquil environment for leisure and recreation. Its landscaped gardens, walking trails, and green spaces offer visitors a peaceful retreat while also emphasizing the importance of preserving natural resources.

Overall, the theme park serves as a model for sustainable urban development and environmental stewardship, inspiring visitors to take action towards conserving water and building resilient communities. Through its innovative approach and comprehensive educational programs, the park contributes to raising awareness about rainwater harvesting and empowering individuals to make a positive impact on water conservation efforts.



## **NEED FOR WATER CONSERVATION**

**Sustainable Water Supply:** Freshwater is a limited resource, and as the global population grows, the demand for water increases. Conserving water ensures a sustainable supply for essential needs such as drinking, sanitation, agriculture, and industry.

**Mitigating Water Scarcity:** Many regions face water scarcity due to factors like climate change, population growth, and inefficient management practices. Conserving water helps alleviate strain on existing sources and reduces the likelihood of shortages.

**Protecting Ecosystems:** Freshwater ecosystems provide vital services such as water purification, flood regulation, and habitats for aquatic species. Water conservation helps maintain these ecosystems, supporting biodiversity and the health of aquatic habitats.

**Global Equity:** Access to clean water is a basic human right, yet millions lack reliable access. By conserving water, we can promote more equitable distribution and address water poverty, contributing to social justice.

**Reducing Wastewater Pollution:** Water conservation minimizes the volume of wastewater generated, reducing the need for treatment and preventing the contamination of water sources with harmful pollutants, thereby protecting water quality and aquatic life.

## **CONCLUSION**

In conclusion, water conservation is not just an environmental responsibility, but a fundamental necessity for the future of our planet and its inhabitants. As global populations continue to grow and the impacts of climate change intensify, the pressure on our finite freshwater resources is increasing. Implementing effective water conservation practices is crucial for mitigating water scarcity, protecting ecosystems, reducing pollution, and conserving energy. By adopting efficient water management techniques, embracing water-saving technologies, and promoting a culture of awareness and responsibility, we can ensure that water remains available and sustainable for future generations. Beyond its environmental benefits, water conservation is closely tied to social, economic, and geopolitical stability, impacting everything from public health and food security to economic development and social equity. Conserving water today means creating a more resilient, sustainable, and just world for tomorrow, where access to clean water is guaranteed for all.



**AMC**  
ENGINEERING COLLEGE  
BENGALURU



**Report on**  
**Module -5**  
**“Food Walk”**

**Student Involved: Manvith H Shetty (1AM23CI079)**

**Under The Guidance of**  
**Mrs. AMBILI**  
**Assistant Professor**  
**Department of CSE-AIML, AMCEC**

**Description of the Activity:**

- A Food Walk is a delightful and immersive culinary experience that takes participants on a journey through various eateries, food stalls, and culinary landmarks within a specific neighborhood or city.
- This activity is designed to explore and savor the diverse flavors, aromas, and cultural richness of the local cuisine.
- Participants have the opportunity to sample a variety of dishes, learn about the history and traditions behind each culinary creation, and engage with the vibrant food culture of the area.
- Led by knowledgeable guides or food experts, the Food Walk offers a curated route to showcase the best and most authentic culinary gems of the region.
- Participants gain insights into the local food scene, culinary traditions, and the stories behind each dish.

## **INTRODUCTION**



Food is much more than just sustenance; it is central to human culture, health, and well-being. This introduction explores its significance in nutrition, agriculture, social interactions, and culinary traditions. Food provides essential nutrients and energy, supporting health, growth, and disease prevention. Beyond nutrition, food reflects cultural heritage and agricultural practices. Agriculture, from traditional to modern methods, ensures food security, protects resources, and combats climate change. Sharing meals strengthens social bonds, unites communities, and celebrates traditions, making food an integral part of our lives.

The production and consumption of food are intricately linked to agriculture, which encompasses a diverse range of practices, from traditional farming methods to modern agribusiness. Sustainable agriculture not only ensures food security but also protects natural resources, promotes biodiversity, and mitigates the impacts of climate change. Food is also deeply intertwined with social dynamics and human relationships. Sharing meals with family and friends fosters bonds, strengthens communities, and celebrates cultural traditions.

## **CATEGORIES OF FOOD**

**Fruits and Vegetables:** A diverse range of edible plants, such as apples, bananas, broccoli, and spinach, packed with vitamins, minerals, fibre, and antioxidants, making them essential for a healthy diet.

**Grains:** Staples like wheat, rice, oats, and corn, rich in carbohydrates for energy, as well as fibre and essential nutrients.

**Proteins:** Crucial for tissue repair and various physiological functions, with common sources including meat, fish, eggs, dairy products, legumes, tofu, and nuts.

**Sweets and Snacks:** A wide array of indulgent foods, such as candies, chocolates, pastries, cookies, chips, and crackers.

**Beverages:** Liquids consumed for hydration and enjoyment, including water, tea, coffee, juice, soda, and alcoholic drinks.

**Processed and Packaged Foods:** Foods that have been processed for convenience, preservation, and flavour, such as canned soups, frozen meals, snack bars, and ready-to-eat options.

**Dairy Products:** Milk, cheese, yogurt, and butter, rich in calcium, protein, and other nutrients essential for bone health and growth.

**Snacks:** Foods typically consumed between meals, including chips, crackers, nuts, popcorn, granola bars, and dried fruits, offering convenience and portability.

**Ethnic and Regional Foods:** Traditional dishes linked to specific cultures, regions, or countries, showcasing local ingredients and culinary techniques.

## FOOD STREET



Street food offers a vibrant snapshot of a culture, brimming with diverse flavors, aromas, and culinary traditions served directly from the bustling streets. From savory snacks to sweet delights, street food vendors around the world offer a wide array of treats that reflect local tastes, regional specialties, and cultural heritage. As part of my "Social Connect and Responsibility" project, I explored various food streets in Bengaluru on a "Food Walk." I visited the famous V. V. Puram Food Street, also known as Chat Road, on December 23, 2024, with my friends. Being a food enthusiast, I couldn't resist trying a variety of dishes, including Pav bhaji, Vada pav

, fried rice , pani puri , masal puri , momos, chiroti and rasmalai(a sweet dish), goli soda, choco strawberry, and ending with the indulgent Death by Chocolate (DBC). Among all the food I tried, the Vada Pav and DBC stood out as personal favorites.

Street food is more than just satisfying hunger; it's a communal celebration that connects people, fosters relationships, and highlights the richness of cultural traditions. These vibrant food spots often create a lively atmosphere where diners can interact with vendors and fellow food lovers,

fostering a sense of unity. They offer an authentic glimpse into the local culinary customs, showcasing traditional dishes passed down through generations. However, while street food is a beloved part of local culture, hygiene and food safety remain crucial considerations. Despite these challenges, street food continues to be an irresistible way to experience



experience the soul of a city and the warmth of its people. It reminds us of the diversity in culinary practices across the world and the universal language of food that brings people together.

The charm of street food lies in its ability to deliver local flavours in a simple yet satisfying way. Whether it's the smoky taste of grilled meat, the zest of spicy sauces, or the crispy texture of freshly fried snacks, street food tantalizes the taste buds and leaves a lasting impression. Vendors often specialize in a few signature dishes, perfecting their recipes over time, ensuring that each bite is packed with quality, consistency, and flavour. While the joy of street food is subjective, it's undeniably a source of culinary exploration, offering a delicious adventure with every meal.



## **CONCLUSION**

A food walk is more than just a culinary experience; it's a sensory journey that immerses you in the vibrant world of flavours, aromas, and traditions that shape a city or region's culinary identity. From relishing street food delights to uncovering hidden treasures in lively markets and cozy alleyways, a food walk offers a distinctive way to explore a destination through its gastronomic wonders. Each bite during the walk narrates a story, embodying the local tastes, age-old traditions, and cultural heritage passed down through generations. As you stroll the streets, engaging with vendors, sharing meals with locals, and exchanging tales with fellow food lovers, you're not just satisfying your appetite but building meaningful connections and cherishing unforgettable moments. A food walk ultimately serves as a beautiful reminder that food is more than nourishment—it's a unifying force that transcends language, culture, and borders. It's a celebration of our shared humanity and the universal joy of coming together over a meal.