

# TARA GOVERNMENT COLLEGE, SANGAREDDY (A)

Accredited with 'B' Grade by NAAC ISO 9001:2015 certified

# DEPARTMENT OF ECONOMICS (HOPE)

19th November 2022

# **BRAIN STORMING SESION**

(మేథో మథనం)

on

Digital Rupee (Currency)
Pros and Cons

**New Ideas and Solutions** 

Participated by
Students' Groups of Economics
(BA - EPP/HEP/EPCA- I, II & III Semesters)

## **BRAIN STORMING SESSION**

# Department of Economics (HOPE) 19-11-2022

Brian Storming Session is organized by the Deartment of Economics of the college on the topic" Digital Rupee or Currency – its pros and cons and new ideas and solutions' on 19<sup>th</sup> November 2022 in the college. It is an activity or a teaching – learning method in which a group of people meet to suggest a lot of new ideas and solutions for possible better implementation and development.

Brainstorming is a problem-solving activity where students build on or develop higher order thinking skills and it encourages creative thought. Brainstorming encourages students to think creatively (out of the box), encouraging all students to share their ideas, no matter how far "out there" they may seem.

# **Objectives:**

- 1. To use in the inclusive classroom and give all students a chance to express their ideas
- 2. To eliminate fear of failures and risk-taking among the students, increase the respect for each other and to tap into prior knowledge, individuality and creativity.

#### **Session:**

Session begins with the rules and information about the topic. Prior to starting a new topic or concept, the brainstorm session will provide teachers with a great deal of information regarding what the student may or may not know. So, Dr. G. A. Venkatesham, Asst. Prof. of Economics, clearly briefed the rules of the session and later, Dr. G. Jagadishwar, Asst. Prof. of Economics, recorded the minutes and ideas expressed by the teams by thorough observation from the beginning to end.

Here are some basic rules to follow when we are conducting a brainstorm in the classroom with a small or whole group of students:

- There are no wrong answers
- Try to get as many ideas as possible
- Record all ideas
- Do not express your evaluation on any idea presented

Brainstorms allow for others to freely propose ideas, a group problem-solving technique that involves the spontaneous contribution of ideas from all members of the group. Hence, we created three groups, A, B & C groups, consisting of V semester, III and 1<sup>st</sup> semester students respectively, as it is a team work.

#### Benefits of the session:

**Idea Building:** All the students voluntarily may respond and generate an idea and discuss with others. Each idea that is brought up doesn't have to stand on its own.

**Get out of a normal routine**: Another benefit of having a brainstorming session is to get out of a normal routine

Think individually and share collectively: Students collectively create some ideas and solution for the given problem and discuss the same with genuine reasons in the session

**Judgment-free zone:** Creative spaces are judgment-free zones—they let ideas flow so people can build from each other's great ideas.

# **Groups of Students:**

**A Group-** V Semester students of BA

**B Group-** III Semester students of BA

C Group- I Semester students of BA



**Brain Storming Session** 





**Students expressing Ideas** 





# Students teams participating



# FEEDBACK ON BRAIN STORMING SESSION

Department of Economics 19-11-2022

SI. No	Participant Name	Course	Feedback	Sign

#### **Summary Notes on Digital Currency**

The Reserve Bank of India will soon commence limited pilot launches of the digital rupee for specific use cases. A concept note on the Central Bank Digital Currency was released on Friday. It explains the objectives, choices, benefits and risks of issuing digital rupee. The 51-page document also discusses key considerations such as technology and design choices, possible uses of Digital Rupee, issuance mechanisms... at the same time examining the implications of introduction of CBDC on the banking system, monetary policy, financial stability and privacy issues.

# What is the CBDC or National Digital currency?

A Central Bank Digital Currency (CBDC), or national digital currency, is simply the digital form of a country's fiat currency.

Instead of printing paper currency or minting coins, the central bank issues electronic tokens. This token value is backed by the full faith and credit of the government.

#### Working of e-RUPI:

e-RUPI is a cashless and contactless digital payment medium, which will be delivered to mobile phones of beneficiaries in form of an SMS-string or a QR code.

This will essentially be like a prepaid gift-voucher that will be redeemable at specific accepting centers without any credit or debit card, a mobile app or internet banking.

e-RUPI will connect the sponsors of the services with the beneficiaries and service providers in a digital manner without any physical interface.

It is important to note, however, that e-RUPI is neither a cryptocurrency nor a central bank digital currency (CBDC). It is also not a digital or e-wallet either, which may admittedly sound strange to some.

#### **Need for a CBDC:**

The growth of cryptocurrencies such as Bitcoin, Ethereum etc. has raised challenges to fiat currencies. Along with their other vulnerabilities made the central bank of each country explore the possibility of introducing their own digital currencies.

A 2021 BIS survey of central banks, which found that 86% were actively researching the potential for such currencies, 60% were experimenting with the technology, and 14% were deploying pilot projects. The need for inter-bank settlement would disappear as it would be a central bank liability handed over from one person to another.

## India future in digital currency:

According to the RBI, there are at least four reasons why digital currencies are expected to do well in India: One, there is increasing penetration of digital payments in the country that exists alongside sustained interest in cash usage, especially for small value transactions. Two, India's high currency to GDP ratio, according to the RBI, "holds out another benefit of CBDCs". Three, the spread of private virtual currencies such as Bitcoin and Ethereum may be yet another reason why CBDCs become important from the point of view of the central bank. Four, central bank digital currency (CBDC) might also cushion the general public in an environment of volatile private VCs

# Significance of e-RUPI and how is it different than a digital currency:

The government is already working on developing a central bank digital currency and the launch of e-RUPI could potentially highlight the gaps in digital payments infrastructure that will be necessary for the success of the future digital currency.

In effect, e-RUPI is still backed by the existing Indian rupee as the underlying asset and specificity of its purpose makes it different to a virtual currency and puts it closer to a voucher-based payment system.

Also, the ubiquitous Ness of e-RUPI in the future will depend on the end-use cases.

Even the private sector can leverage these digital vouchers as part of their employee welfare and corporate social responsibility programs.

According to government, e-RUPI is easy, safe and secure as it keeps the details of the beneficiaries completely confidential. The entire transaction process through this voucher is relatively faster and at the same time reliable, as the required amount is already stored in the voucher. e-RUPI is expected to ensure a leak-proof delivery of welfare services. It can also be used for delivering services under schemes.

The government also said that even the private sector can leverage these digital vouchers as part of their employee welfare and corporate social responsibility programmes. It also guarantees that the service provider is only paid once the transaction has been completed.

What Is a Digital Currency?

Digital currency is a form of currency that is available only in digital or electronic form. It is also called digital money, electronic money, electronic currency, or cybercash.

Digital currencies are currencies that are only accessible with computers or mobile phones because they only exist in electronic form. Typical digital currencies do not require intermediaries and are often the cheapest method for trading currencies. All cryptocurrencies are digital currencies, but not all digital currencies are cryptocurrencies. Some of the advantages of digital currencies are that they enable seamless transfer of value and can make transaction costs cheaper. Some of the disadvantages of digital currencies are that they can volatile to trade and are susceptible to hacks.

#### **Understanding Digital Currency**

Digital currencies do not have physical attributes and are available only in digital form. Transactions involving digital currencies are made using computers or electronic wallets connected to the internet or designated networks. In contrast, physical currencies, such as banknotes and minted coins, are tangible, meaning they have definite physical attributes and characteristics. Transactions involving such currencies are made possible only when their holders have physical possession of these currencies.

Digital currencies have utility similar to physical currencies. They can be used to purchase goods and pay for services. They can also find restricted use among certain online communities, such as gaming sites, gambling portals, or social networks. Digital currencies also enable instant transactions that can be seamlessly executed across borders. For instance, it is possible for a person located in the United States to make payments in digital currency to a counterparty residing in Singapore, provided they are both connected to the same network.

#### **Characteristics of Digital Currencies**

As mentioned earlier, digital currencies only exist in digital form. They do not have a physical equivalent. Digital currencies can be centralized or decentralized. Fiat currency, which exists in physical form, is a centralized system of production and distribution by a central bank and government agencies. Prominent cryptocurrencies, such as Bitcoin and Ethereum, are examples of decentralized digital currency systems. Digital currencies can transfer value. Using digital currencies requires a mental shift in the existing framework for currencies, where they are associated with sale and purchase transactions for goods and services. Digital currencies, however, extend the concept. For example, a gaming network token can extend the life of a player or provide them with extra superpowers. This is not a purchase or sale transaction but, instead, represents a transfer of value.

#### **Types of Digital Currencies**

Digital currency is an overarching term that can be used to describe different types of currencies that exist in the electronic realm. Broadly, there are three different types of currencies:

## Cryptocurrencies

Cryptocurrencies are digital currencies that use cryptography to secure and verify transactions in a network. Cryptography is also used to manage and control the creation of such currencies. Bitcoin and Ethereum are examples of cryptocurrencies. Depending on the jurisdiction, cryptocurrencies may or may not be regulated.

Cryptocurrencies are considered virtual currencies because they are unregulated and exist only in digital form.

#### **Virtual Currencies**

Virtual currencies are unregulated digital currencies controlled by developers or a founding organization consisting of various stakeholders involved in the process. Virtual currencies can also be algorithmically controlled by a defined network protocol. An example of a virtual currency is a gaming network token whose economics is defined and controlled by developers.

## **Central Bank Digital Currencies**

Central bank digital currencies (CBDCs) are regulated digital currencies issued by the central bank of a country. A CBDC can be a supplement or a replacement to traditional fiat currency. Unlike fiat currency, which exists in both physical and digital form, a CBDC exists purely in digital form. England, Sweden, and Uruguay are a few of the nations that are considering plans to launch a digital version of their native fiat currencies. 1 Digital Currencies 2 Virtual Currencies 3. Cryptocurrencies

Regulated or unregulated currency that is available only in digital or electronic form. An unregulated digital currency that is controlled by its developer(s), its founding organization, or its defined network protocol. A virtual currency that uses cryptography to secure and verify transactions as well as to manage and control the creation of new currency units.

Advantages of Digital Currencies: The advantages of digital currencies are as follows:

#### **Fast Transfer and Transaction Times**

Because digital currencies generally exist within the same network and accomplish transfers without intermediaries, the amount of time required for transfers involving digital currencies is extremely fast.

As payments in digital currencies are made directly between the transacting parties without the need for any intermediaries, the transactions are usually instantaneous and low-cost. This fares better compared to traditional payment methods that involve banks or clearinghouses. Digital-currency-based electronic transactions also bring in the necessary record keeping and transparency in dealings.

#### No Physical Manufacturing Required

Many requirements for physical currencies, such as the establishment of physical manufacturing facilities, are absent for digital currencies. Such currencies are also immune to physical defects or soiling that are present in physical currency.

#### **Monetary and Fiscal Policy Implementation**

Under the current currency regime, the Fed works through a series of intermediaries—banks and financial institutions—to circulate money into an economy. CBDCs can help circumvent this mechanism and enable a government agency to disburse payments directly to citizens. They also simplify the production and distribution methods by obviating the need for physical manufacturing and transportation of currency notes from one location to another.

#### **Cheaper Transaction Costs**

Digital currencies enable direct interactions within a network. For example, a customer can pay a shopkeeper directly as long as they are situated in the same network. Even costs involving digital currency transactions between different networks are relatively cheaper as compared to those with physical or fiat currencies. By cutting out middlemen that seek economic rent from processing the transaction, digital currencies can make the overall cost of a transaction cheaper.

**Disadvantages of Digital Currencies:** The disadvantages of digital currencies are as follows:

#### **Storage and Infrastructure Issues**

While they do not require physical wallets, digital currencies have their own set of requirements for storage and processing. For example, an Internet connection is necessary as are smartphones and services related to their provisioning. Online wallets with robust security are also necessary to store digital currencies.

# **Hacking Potential**

Their digital provenance makes digital currencies susceptible to hacking. Hackers can steal digital currencies from online wallets or change the protocol for digital currencies, making them unusable. As the numerous cases of hacks in cryptocurrencies have proved, securing digital systems and currencies is a work-in-progress.

#### Volatile Value

Digital currencies used for trading can have wild price swings. For example, the decentralized nature of cryptocurrencies has resulted in a profusion of thinly capitalized digital currencies whose prices are prone to sudden changes based on investor whims.

Other digital currencies have followed a similar price trajectory during their initial days. For example, Linden dollars used in the online game Second Life had a similarly volatile price trajectory in its early days.

# 3 Pros and Cons of Digital Currencies

**Pros:** 1. Faster transaction times.2.. Do not require physical manufacturing.

3. Lower transaction costs. 4. Make it easier to implement monetary and fiscal policy.

**Cons:** 1. They can be difficult to store and use. 2. Can be hacked. 3. Prices can be volatile.

## **Future of Digital Currencies**

Cryptocurrencies like bitcoin have exploded in value, but they are largely used for speculation or to buy other speculative assets. Although there have been some signs of merchant adoption in countries like El Salvador, the high volatility and complexity of these currencies make them impractical for most daily applications. Many companies have tried to reduce volatility by introducing stable coins, whose value is fixed to the price of fiat currency. This is usually done by depositing an equivalent amount of fiat, which can be used to redeem the tokens. However, stable coin issuers such as Tether have used these deposits on more speculative investments, raising concerns that they are vulnerable to a market crash. Another possible application is in central bank digital currencies, which could be issued by a country's bank or monetary authority. These would be used and stored in online wallets, similar to cryptocurrencies, but allowing the central bank to issue and freeze tokens at will. Several countries, such as China, have proposed digital versions of their currencies.

## Can You Invest in Central Bank Digital Currencies?

CBDCs are unlikely to be useful for speculative investments since they will likely be pegged to the value of an underlying currency. However, it will still be possible to invest in those currencies through the forex markets.

# 4 How Do You Make a Digital Currency?

Most digital currencies are created by issuing them on Ethereum or another blockchain capable of running smart contracts. The issuer must first decide how many tokens to issue, and any special rules that limit transactions or ownership. Once these choices are coded into the smart contract, the issuer pays a small amount of cryptocurrency to pay for the computational cost of issuing the tokens.

Digital currencies are assets that are only used for electronic transactions. They do not have any physical form, although they can be exchanged for regular money or other assets. Although the most popular digital currencies are cryptocurrencies like bitcoin, many national governments are considering issuing their own centralized digital currencies.



# Tara Government College Sangareddy (Autonomous)



# An ISO 9001: 2015 certified college

# **Department of Botany**

# **CHART EXHIBITION ON 15.12.2021**

# **Objectives:**

- 1. To motivate the students in drawing skills.
- 2. To create an interest among the students towards the knowledge in the subject.

The department has organised an chart exhibition on 15.12.2021 in the college. The students have prepared various charts on subject related topics were more than 40 students have participated and exhibited their charts.







# Tara Government College Sangareddy



(Autonomous)

An ISO 9001: 2015 certified college

# **Department of Botany**

## SCIENTIFIC RANGOLI

Department has organized an innovative program called "Scientific Rangoli", where I year BZC EM students draw the scientific diagrams with colors in front of college and explained the importance of plants. This program was organized on the occasion of national science day.

# Objectives:

- 1. To motivate the students to participate in the innovative practices.
- 2. To enable the students to know about the importance of colours.















# Tara Government College Sangareddy



(Autonomous)

An ISO 9001: 2015 certified college

# **Department of Botany**

## **AZOLLA CULTURE**

Azolla is a free-floating, rapidly growing aquatic fern on the water surface. It is a genus of seven species of aquatic ferns in the family Salviniaceae. It is Nitrogen Fixing plant, it is grown in lowland rice fields, it fixes atmospheric nitrogen at a rate faster than the legume –rhizobium symbiotic interaction under the good field conditions. It is used as a biofertilizer on a variety of crops, as an animal feed, a human food, a medicine and a water purifier.

Growing (Production) of Azolla: Mix clean fertile soil with cow dung and water and spread across (uniformly) the pond Azolla species generally grow best in less than full sunlight except in high latitudes during spring. Propagation Azolla is initially grown by inoculating a prebuilt pit or pond with seed. The Azolla will quickly colonize the water and become self - propagating

Azolla cultivation helps the farmer to reduce the cost of Livestock Feed supplements and it is useful to feed supplements for livestock, poultry, and fish. It floats like a small, flat, compact green mass.

The Azolla has been grown in the college and distributed to the farmers as a social responsibity and awareness message has been given to the farmers on the importance of bioferilisers.

# Objectives:

- 1. To know and learn more about the culture of Azolla as a Biofertilizer.
- 2. To create an awareness to the farmers about the use of Biofertilizers like Azolla.
- 3. To serve the community as a social responsibility for the use Biofertilizer rather than the chemical fertilizers.



**Culturing of Azolla** 



Collection of the Azolla



Azolla collected in the Sachets for Distribution



Azolla Distributed to the Farmers



An Awareness and Importance of Use of Biofertilizers-Azolla



Distribution of Azolla to the Farmers



# Tara Government College Sangareddy (Autonomous)



# An ISO 9001: 2015 certified college

# **Department of Botany**

# **QUIZ COMPETITION ON 05.08.2021**

## **Objectives:**

- 1. To motivate the students to participate in the competitive programmes.
- 2. To improve the knowledge in other than the syllabus.

The faculty members i.e., Dr.S.Vijaya, Dr.N.Siddulu and Dr.O.Padmaja together conducted the quiz competition on 05.08.21 to motivate the students the to participate and to win the competition. In quiz competition five groups have been formed namely-Rose Lily, Jasmine, Marigold and Hibiscus. The Jasmine group have won the quiz competition.



# Tara Government College, Sangareddy

(Autonomous)

# Youth for Social Impact Program

Youth for Social Impact Program is an initiative that seeks to empower youth with lived experience of family separation to work with their local communities to address pressing challenges in the areas of transitioning from institution to family care and family/community strengthening.

Youth for Social Impact aims to nurture these potential changemakers and tap into the grassroots-level issues of our communities. It believes the possibilities that this youth brings into the area of social changes are enormous if the correct platforms, chances, and guidance are provided. Youth for Social Impact is poised to provide just such a platform for youth, providing possibilities from ideation to implementation and thus achieving the Sustainable Development Goals of the United Nations.

Official partners of this innovative program are

- i) Telangana State Innovative Cell (TSIC)
- ii) Inqui-lab foundation
- iii) Unicef and
- iv) iv) YuWaah!

The youth for social impact team framed a program for students of all colleges and universities of Telangana State to participate in and give an innovative idea for change/improvement of society. Students have to group into 2 to 4 members as a team and choose a group leader called a pilot and others as crew members. The team has to undergo a learning process at the college level with a trained faculty of the college then they complete learning modules online. It helps the team members to choose the problem/idea/innovation for the betterment of the society/community/city from the pool of themes mentioned below.

- Good health and well-being
  - Health and Population
  - Sustainable Transport
  - National Strategies and SDG integration
- Quality Education
  - Covid-9 Pandemic Global learning crisis
  - Drop outs in Schools and Colleges
  - Online/Virtual Classes
- > Clean water and sanitation
  - Water related Eco-systems
  - Quality of water (lack of maintenance)
  - Safely manged drinking water, sanitation and basic hand hygiene facilities for future generations

- Countries with Trans boundary water crisis.
- People live in with high critical levels of water stress.
- > Sustainable cities and communities
  - Disaster risk reduction
  - Sustainable transport
  - Sustainable cities and human settlements
  - National Strategies and SDG integration
- ➤ Climate action
  - Atmosphere
  - Climate change
  - Small island developing states
  - National Strategies and SDG integration

The team enroll the group on the portal YFSI and up-load their idea with a catchy name and brief write-up on their problem/idea and its solution/implementation.

YFSI team will scrutiny the ideas sent by all the groups and then select 80 groups for the second round. The groups are given chance to improve/renovate/brush their idea and then upload them to the YFSI portal. Of 80 groups, 10 groups of best ideas are selected for the final round.

In the third round, the short-listed 10 groups will be tagged to industrial experts for monitoring support. With their support, the teams will study the pros and cons of the implementation of the ideas to cover the most suitable idea/solution for the problem.

The students after immersion, will iterate, build innovation under the guidance of the mentors. The final solution/working prototype will be presented on the pitch day of the jury members.

The top selected ideas will be considered for the implementation and incubation support. The top teams are declared winners of YSI 2022 given prize money.

First Prize – 1.5 lakhs

Second Prize – 1.0 lakhs

Third Prize – 0.5 lakhs.

Mr. K. Sreedhar and Dr. Ravikumar, the faculty members of our College, gave the training to students and motivated them to participate in this program.

From Tara Government College Sangareddy (A), 138 students in 48 groups joined this program. Out of 48, 8 teams completed the Assessment and Course. Two teams submitted their challenges, and one team got selected for the first round.



# TARA GOVERNMENT DEGREE COLLEGE

# **SANGAREDDY**

UROOJ UNNISA SANADHI LAXMAN AMREEN U. NAVNEETHA

SANADILAKSHMAN321@GMAIL.COM

# **Table of Contents**

Executive Summary	#
Business Description	#
Services Line	#
Market Analysis	#
Marketing Plan	#
Financial Considerations	#
Appendix	#

# **Executive Summary**

RTC Buses are the most widely-used form of public transport in the India serving cities as well as suburban and rural areas. They are also the most cost-efficient and flexible form of public transport, When you consider that, most people use private transport whether it maybe Ola , uber ,Autorikshwa or every other private transport due to motives we don't realize when will the bus comes , loss of endurance or to avoid crowd adventure to conquer these problems we are able to inbuit GPS tracker in each bus to offer the precise place of required bus for passengers and additionally QR scanner based ticket purchase.

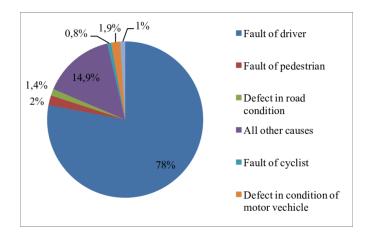
# **Business Description**

To increase the revenues for public transport system ie. RTC buses by imparting beneficial services to passengers.

Many passengers shifting from public transport to private transport and self transport due to they don't realize when will the bus comes .To overcome the issues facing with the aid of passengers through waiting lengthy hours in bus stops for bus , with the help of Gps tracker on each bus to locate the proper location of bus correctly in the Smartphone itself. Additionally the organization provides Qr scanner based ticket purchasing and They might provide brief occupancy of bus on every stop on Google map app or Rtc app itself. No person will pick out non-public shipping in the event that they know while will bus comes.

#### Mission

Our motive is that passengers should be provided with most cost-efficient and flexible form of public transport with safety. Many accidents on avenue takes place because of self riding automobiles



# **Services Line**

## **Service Offerings**

#### QR SCANNER BASED TICKET PURCHASE -

The bus conductor will provided with QR scanner and passengers will scan and pay to buy ticket, and give offers and discounts to attract customers .it will be a great move to attract customers in these digital India . Our reason to introduce these QR scanner based ticket purchasing is to remedy the change issues while buying ticket hence many passengers are using digital currency usually. A few customers might not familiar with digital money therefore they are able to use traditional method to buy ticket .

## OCCUPANCY OF BUS;

They might provide brief occupancy of bus on every stop on app itself, by that passenger could decide whether to board bus or not.

# Market Analysis

#### Target Market

To draw the passengers who use personal or private transport in place of public transport via offering with low-cost ticket and services. And to create habitatual for each passengers to use public delivery in an effort to create extremely good effect on self-riding fuel consumption and additionally controlling of accident rate due to self-riding through preserve sources including petroleum sustainably.

#### **Competitor Analysis**

Ola, uber and a few different personal buses had been taking half of the percentage of transport market in India they're driven with huge marketplace shares due to the services and facilities they providing.

- Comparative Strength most cost-efficient and flexible form and safety.
- Comparative Weakness fail to provide attractive services to passengers.

Competitor Name	Strength(s)	Weakness(es)
Private buses	services	High ticket price
Taxis	Exact point pickup	High charges
Autorikshaw	Exact drop point	Not safety

# Marketing Plan

The cost efficient ticket prices and protection transport itself is tremendous pass to attract passengers.

# **Financial Considerations**

RTC revenue sees 1.5 cr per day according to Times of India; march 14 2020 statistics.

## **Startup Costs**

When you consider that in Telangana itself their are 9,384 TSRTC buses present on account that every bus have to be in-built with GPS tracking device to offer uninterrupted carrier for the passenger and one unit of GPS tracking device cost almost 1500 rupees.

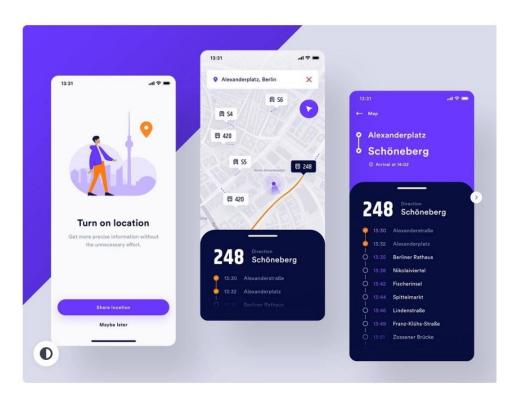
## **Funding Requirements**

To start with it is required 10,00,000 amount to experiment upon the 10 percentage of TSRTC buses to see the result.

Perhaps, the built in of GPS tracking device in every TSRTC bus is more money ingesting process subsequently, these will circuitously generate big revenues to TSRTC through their service to passengers indirectly by shifting private and self transport passengers to public transport . The total project fee is around 1 day revenue of TSRTC.

# **Appendix**

• Floor plans



The above attached image depicts the similar interface of our service in google maps and TSRTC app to locate the precise place of required bus for passengers in smartphone .

# Tara Government College Sangareddy

(Autonomous)

# **Exhibition of Molluscan shells**

An exhibition was conducted by the department of zoology on Molluscan shells on 27/2/2017.

### Objective of the Programme:

Aim of conduction of the exhibition on molluscan shells is to give first hand information about various varieties of molluscan animals and shells.





#### **Outcome of the Programme:**

Students of the college responded to the programme and saw the various types of molluscan shells. Students of the college got information about different types of shells produced by the molluscans. Students got awareness about the external and internal shells of the molluscans. Shell is useful in protection, as these animals are soft bodied animals.

Students from M.Sc. Physics have visited ISRO vehicle conducted at science museum at sangareddy. The students have actively participated in the event. Scientific Officer Sri Vijay Kumar has explained about various things. Organizer of ISRO has invited the students.



The students showed their interests and actively participated in the visit. This Educational trip was extremely successful and helpful to the students in developing their interest in research and learning about the current important areas of research and development.



Visit to the Hyderabad Central University by the dept of Biotechnology





Visit to the CCMB by students of life sciences



Peer learning

# EDUCATIONAL TRIP TO CENTRAL INSTRUMENTATION LABORATORY, UNIVERSITY OF HYDERABAD ON 07/07/2022

As a part of the curriculum of B.Sc. Biotechnology, a one-day educational trip was organised by the Biotechnology Department to Central Instrumentation Laboratory – University of Hyderabad, on 07/July/2022

- The main objective of the trip is to provide students an insight of the practical applications of what they are learning in theoretical part of the curriculum.
- Students gets acquainted with the working principle and instrumentation of advanced Microscopy - SEM TEM and Confocal Microscope.
- It provides students with an opportunity to learn practically through interaction and working methods, with the experts.

A group of 25 students of I & III B.Sc. Biotechnology was accompanied by D. Annapurna Head, Department of Biotechnology. The students were taken to the advanced research facilities of University of Hyderabad housed in the central Instrumental Laboratory. Various advanced instruments were shown through demonstration by experts and students were made aware of the working and applications of this facilities. S Pavan Kumar, Scientific Officer at CIL, showed the students the Scanning Electron Microscope, Circular Dichroism (CD) Spectropolarimeter and Confocal Microscope available at the CIL. It was an interactive session where students were explained about the steps, principle and instrumentation involved in Scanning Electron Microscope.



# Tara Government College Sangareddy

(Autonomous)

A few paintings by students



