



Make4Mysore

Innovate Today, Power Tomorrow

Edition – 1 (2024)

ComedKares Innovation Hub, Mysore
25th & 26th October 2024

Supported by:



Program Overview:

The Make4Mysore initiative by ComedKares Innovation Hub Mysore, in collaboration with IEEE Smart Cities and supported by IEEE Bangalore Section & IEEE Mysore Sub Section, aims to foster a vibrant innovation ecosystem by empowering students and community stakeholders to co-create solutions focused on Sustainable Livelihoods. Join us for a two-day hackathon at the Mysore ComedKares Innovation Hub, where over 100+ builders and technocrats tackle pressing challenges. Participants can explore innovative solutions in Sustainable Tourism, Waste Management & Recycling, Street Vendor Empowerment, Healthcare and Well-being, Public Safety and Security, and Cultural and Recreational Facilities, or propose your own themes related to sustainable livelihoods.

Hackathon Overview:

Title	Make4Mysore
Date and Time:	25-10-2024 - 26-10-2024 (9:00 AM - 5:00 PM)
Total no of Institutions Participated	15
Name of Institutions	<ul style="list-style-type: none">• ATME COLLEGE OF ENGINEERING• Bearys Institute of Emerging Sciences• Don Bosco institute of technology• GSSS Institute of Engineering and Technology for Women• Jain College of Engineering , Belagavi , Karnataka• Ms Ramaiah Institute of Technology• Maharaja institute of technology Mysore• The National Institute of Engineering, Mysuru• PES college of engineering mandya• RNS INSTITUTE OF TECHNOLOGY• RV University• Rajarajeshwari college of engineering bangalore• S G Balekundri Institute of Technology, Belagavi , Karnataka.• Shetty institute of technology Gulbarga• Vidyavardhaka college of engineering
Total no of students Attended	131

Guests



Dr. Bhamy V Shenoy

FOUNDER, NGP



Lakshmikanth Reddy.G ,I.A.S

HON'BLE DEPUTY COMMISSIONER & DISTRICT
MAGISTRATE



Dr. Chengappa Munjandira

SENIOR TECHNOLOGIST, HEWLETT PACKARD
ENTERPRISE | VICE CHAIR, IEEE BANGALORE
SECTION



Dr. Ravichandra Kulkarni

PROFESSOR, CSE IC & DEAN R&D, MIT MYSORE |
CHAIR, IEEE MYSORE SUB SECTION



Dr. S. Kumar

EXECUTIVE SECRETARY COMEDK



Muralidhar Ponnaluri

CEO, ERA FOUNDATION

Jury



Anitha Sadanand

FOUNDER, MOMMY MILLS FOODS PRIVATE LIMITED



Ravi BR

DIRECTOR OF ENGINEERING | CENTER HEAD, TRAVANCORE ANALYTICS | MEMBER, TIE MYSURU

Hackathon Agenda:

Day - 1

Sl. No.	Program Details	Timings
1	Registration	09:00 AM – 09:30 AM
2	Inauguration Ceremony	09:30 AM – 9:50 AM
3	Guest Address	09:50 AM – 10:00 AM
4	Start of Hackathon	10:00 AM – 1:30 PM
5	Lunch Break	01:30 PM – 02:30 PM
6	Hackathon Resumes	02:30 PM – 03:30 PM
7	IEEE Faculty Provide inputs to participants and grade	03:30 PM – 04:30 PM
8	Participants incorporate feedback and build	04:00 PM – 06:00 PM

Day - 2

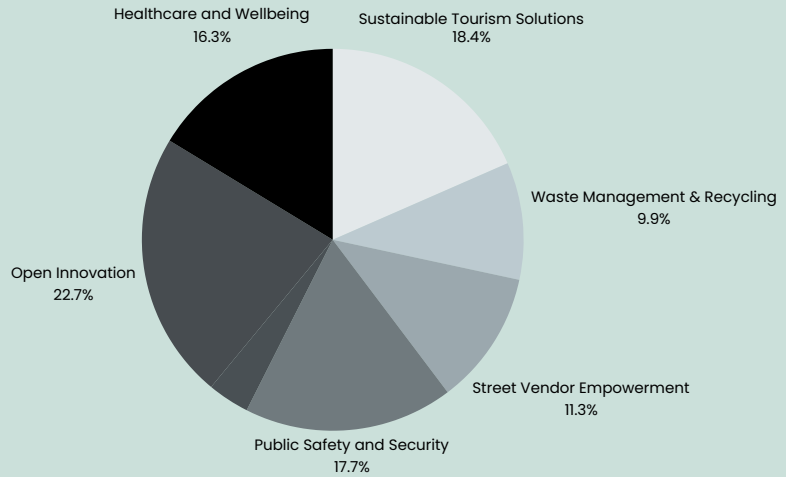
Sl. No.	Program Details	Timings
1	Registration	09:00 AM – 09:30 AM
2	Hackathon Resumes	09:30 AM – 01:30 PM
3	Lunch Break	01:30 PM – 02:00 PM
4	Jury Evaluation (2 Parallel Sessions)	02:00 PM – 03:25 PM
5	Finalising Winners and Participants Networking	03:30 PM – 03:45 PM
6	Prize Distribution	03:45 PM – 4:00 PM
7	Guest Address	04:00 PM – 4:15 PM
8	Closing note and High Tea	04:15 PM – 04:30 PM

FEEDBACK ANALYSIS

Over Hackathon Rating: 8.7/10

Students who worked on personal projects as a hobby or out of interest: 93 Students (71.5%)

Theme Focus:



Facilitator & Mentor Rating:

Somewhat helpful, but not consistently responsive 16.9%



Very helpful and highly responsive 83.1%

Testimonials

Sumeet Hibare, Shetty Institute Of Technology

“ The overall experience is amazing, and projects were also superb

Darshan I C, Vidyavardhaka College of Engineering

“ It was a great experience, though it was the first hackathon I attended

Shreyas R Katti, SG Balekundri Institute of Technology

“ The hackathon was a fantastic experience, and my team and I thoroughly enjoyed the opportunity to learn and grow

Sameer Magi, Raja Rajeshwari Engineering College

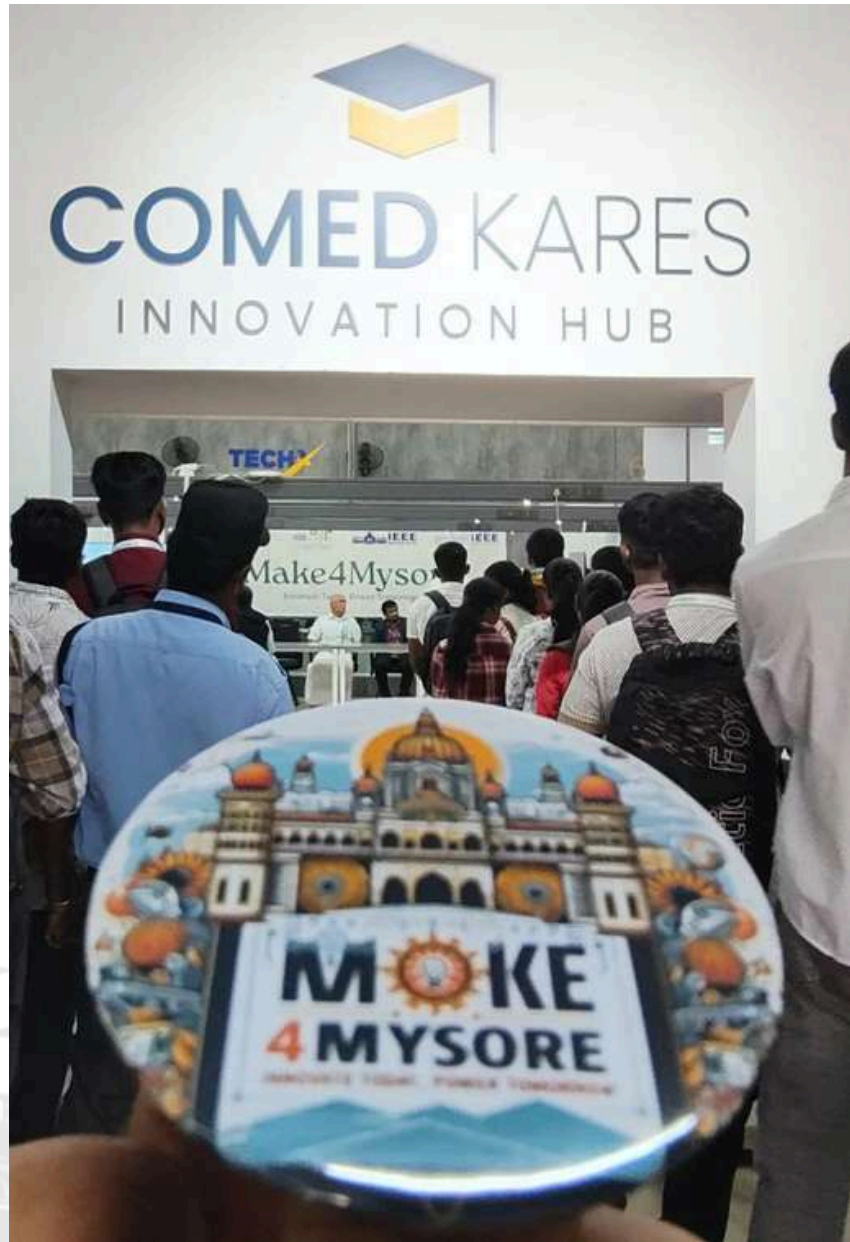
“ I have attended so many hackathons, but this hackathon was a very good experience, and I learned so much

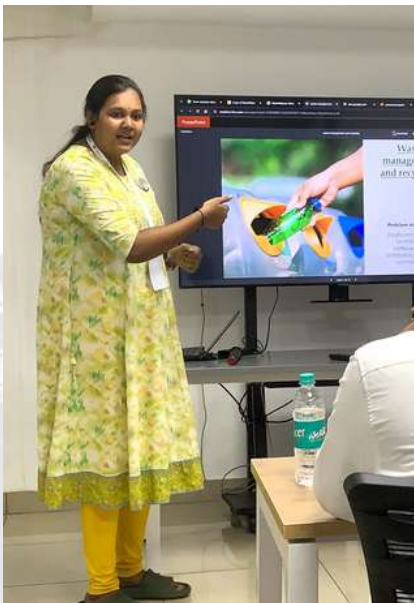
Ankit Ammanagi, Jain College of Engineering, Belagavi, Karnataka

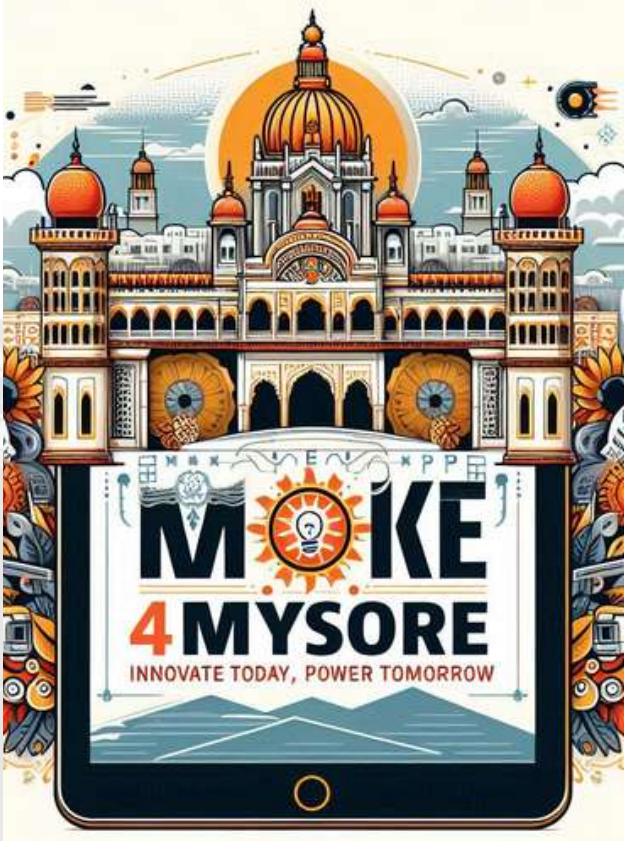
“ I rated the hackathon experience highly due to the helpful responses, excellent facilities, and the supportive presence of the organizers and experts

NT Aravind Narayanan, RV University

“ Their insights on our project enabled us to explore sides we couldn't think of









Project Title

SURYAKIRAN: A MECHNICAL INNOVATION IN SOLAR TRACKING



Problem Statement

Fixed-position solar panels face inefficiencies from limited sunlight capture, increased space needs, and overheating due to stagnant positioning, all of which reduce energy output and lifespan. These limitations hinder solar systems from achieving optimal performance, particularly in areas with variable sunlight or shading.

Project Team



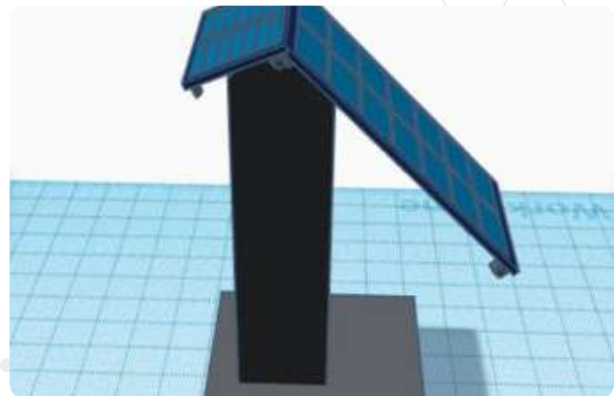
Team Members

Skanda R Nadig
Niharika Kiran M

Dhawala S
Durga Prasad

Solution

To tackle this problem we have developed an autonomous dual-axis solar tracker which tracks the movement of the sun without using an AC source. The tracker consists of one small and one large panel. The small panel after getting the sunlight turns away from the sun causing the larger panel to face the sun and harness the energy. The model does not use any type of sensors, actuators etc. If we use solar trackers in place of traditional solar panels we can observe an increase in efficiency by 20% which is a huge increase for large installations. The salient features of the model are increased efficiency, minimal maintenance, cost efficient, durable and weather resistant & ease of installation. This project also leads to decreased land use, increased energy production, reduce in shading losses etc. Overall this is a very efficient and feasible way to increase energy production and make our country more sustainable and safer place for everyone.



Project Title

KEYBOARD FOR EFFECTIVE COMMUNICATION BETWEEN INDIVIDUALS WITH PARTIAL PARALYSIS AND MOBILITY LIMITATIONS

Problem Statement

Individuals with partial paralysis and mobility issues often struggle with a profound challenge: the inability to communicate effectively. The simple act of typing a message becomes a monumental barrier to connection and self-expression. Traditional keyboards demand dexterity and fine motor skills that these individuals may no longer possess, leaving them alone and voiceless. This project seeks to address this urgent issue by developing an adaptive reduced-key keyboard, designed specifically to empower these individuals with a means of communication, thereby restoring their ability to connect with the world.

Project Team



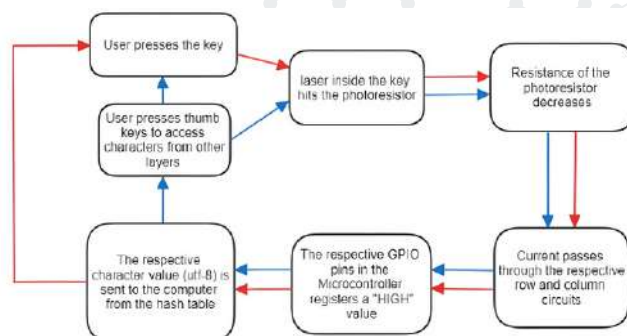
Team Members

Ananth Pullur
Ananya N Shetty

Sree Govinth N
Vaishnav S

Solution

Our solution is an optimized reduced-key keyboard designed to restore the ability to communicate for individuals living with partial paralysis and mobility challenges. By reducing the number of keys and optimizing the layout for easier use, this keyboard aims to make typing accessible again for those who struggle with traditional input devices. This solution is more than a tool—it's a lifeline that allows individuals to reconnect, regain independence, and express themselves freely; bringing back a sense of independence and human connection that many have lost.



Project Title

MENTAL HEALTH MONITORING AND SUPPORT SYSTEM

Problem Statement

Building a Mental Health Monitoring and Support System involves creating a comprehensive platform that can continuously assess an individual's mental health, detect signs of distress, and provide timely support, resources, and interventions. The system should be designed to offer a blend of automated tools, real-time monitoring, and access to human professionals for a holistic approach to mental well-being.

Project Team



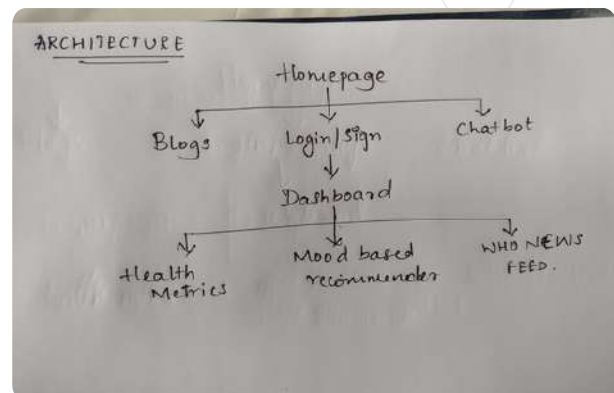
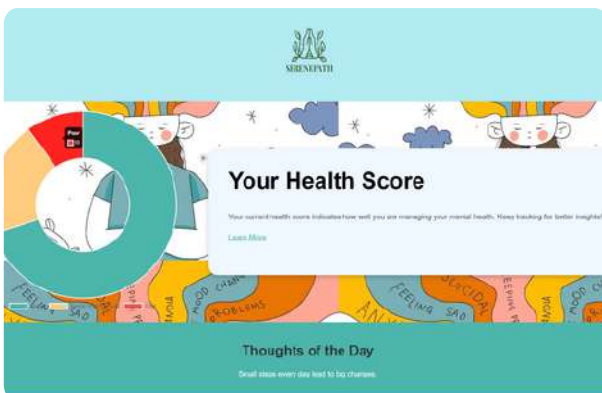
Team Members

Shrilakshmi Kakati
Aditya Viroopaxi

Shambhavi Desai
Suyog Hanamar

Solution

We designed a healthcare website that includes a chatbot for 24/7 health support. Our website will offer a range of informative blogs focused on mental health, covering topics such as mental health strategies, self-care practices, and insights into managing stress and anxiety. The platform will centralize resources to ensure continuous patient support. Helps in cheering up the mood of the user. AI Chatbot is trained to chat only on healthcare matters. We also have WHO news updates on healthcare matters.



Project Title

CULTURAL EXCHANGE PLATFORM

Problem Statement

In our increasingly interconnected world, many individuals struggle to form meaningful connections across cultural divides, limiting opportunities for enriching exchanges of knowledge, recipes. Many individuals yearn for genuine cultural exchange but lack the tools and opportunities to engage meaningfully with others. Users may struggle to share their true cultural narratives due to fear of misrepresentation or misunderstanding.

Project Team

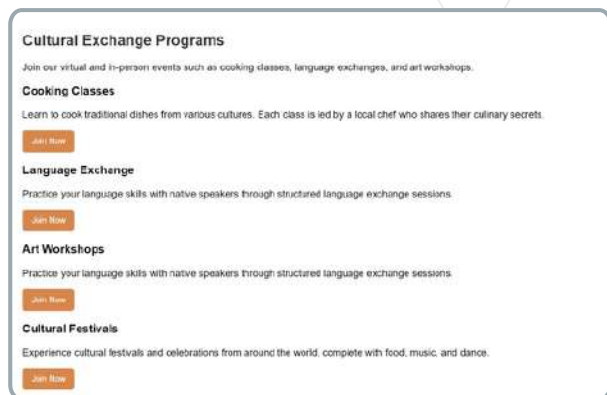


Team Members

Prajna SR
Pragna V

Solution

By offering interactive features such as discussion forums, live workshops, and virtual tours, our platform fosters a vibrant community where users can connect and collaborate. Users can contribute their own stories and insights, creating a rich tapestry of cultural knowledge that is accessible to all. In addition to sharing content, we also prioritize the importance of understanding and respect. Our platform includes resources for cultural sensitivity and encourages respectful dialogue, ensuring that every interaction is meaningful and enlightening. Whether you're a foodie exploring new cuisines, a history buff delving into ancient traditions, or simply curious about the world, our platform offers a gateway to discover and appreciate the diversity that makes our global community so unique and beautiful.



Project Title

GROWWISE: PERSONALIZED GUIDE TO SUSTAINABLE GROWING TECHNIQUE.



Problem Statement

Urbanization is placing significant pressure on traditional farming, escalating resource consumption, and resulting in water, fertilizer, and pesticide overuse, which leads to waste, pollution, and environmental harm. This excessive use of chemicals reduces nutrient quality in produce while introducing higher pesticide levels. Additionally, farming's reliance on unpredictable climate patterns further challenges its sustainability. Recognizing these issues, the FAO endorses soilless farming methods like aeroponics, aquaponics, and hydroponics, which use fewer resources and eliminate pesticides. Despite these advantages, a key barrier to their widespread adoption is the scarcity of region-specific, precise information needed to effectively manage these systems. Current AI chatbots, such as ChatGPT and Gemini, often provide generalized advice rather than personalized guidance, limiting effective nutrient management, operational efficiency, and optimal plant growth for soil-less farming setups.

Project Team



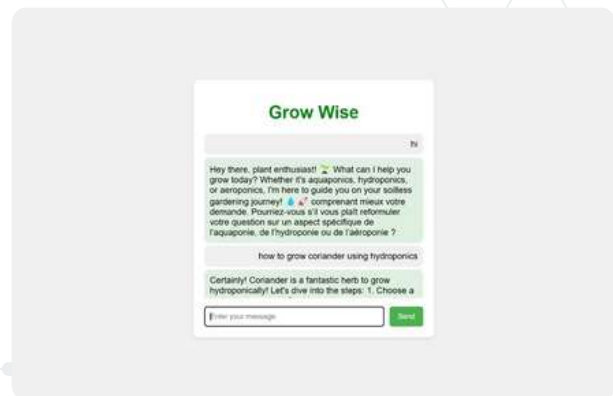
Team Members

Ankit Ammanagi
Shreyas Badiger

Shreyash Patukale
Harshavardhan Asode

Solution

The Biophonics chatbot offers personalized support for aeroponics, hydroponics, and aquaponics, providing region-specific advice aligned with essential techniques. It offers plant-specific nutrient guidance to optimize growth, assisting with NPK levels, pH adjustments (using Potassium Hydroxide or Nitric Oxide), TDS, magnesium, Epsom salts, and micronutrients. Additionally, it provides troubleshooting for visible anomalies with step-by-step guidance and integrates smoothly with any existing management system software.



Project Title

SMART SANTE FOR STREET VENDOR EMPOWERMENT



Problem Statement

Street vendors in urban India are vital to the local economy but face significant challenges due to limited access to digital payment systems, ineffective stock and account management tools, and low customer visibility. Without digital payments, they miss out on cashless customers, resulting in potential sales losses. Additionally, inadequate inventory management hinders their financial stability, while customers struggle to locate them, reducing foot traffic and limiting their customer base.

Project Team



Team Members

Veeresh P T
Shreyas Katti

Shubam Hiremath
Tejal Kavatage

Solution

Our solution is a web platform that empowers street vendors with essential tools for success in the digital economy. It offers easy stock and account management for tracking inventory and sales, and an interactive map for customers to locate vendors. Additionally, the platform features a community section for vendors to connect, share experiences, and support one another. Overall, our platform aims to improve the livelihoods of street vendors, promote financial inclusion, and strengthen their presence in urban marketplaces.



Project Title

MAMTA MARG: A PREGNANCY RESOURCE HUB



Problem Statement

Pregnancy is a transformative journey that can be both exciting and overwhelming for expectant mothers. Many women seek reliable information about what to expect during each trimester, including fetal development milestones, maternal symptoms, recommended prenatal care, nutrition, potential health concerns, and necessary lifestyle adjustments. However, existing resources can often be fragmented, leading to confusion and misinformation.

Project Team



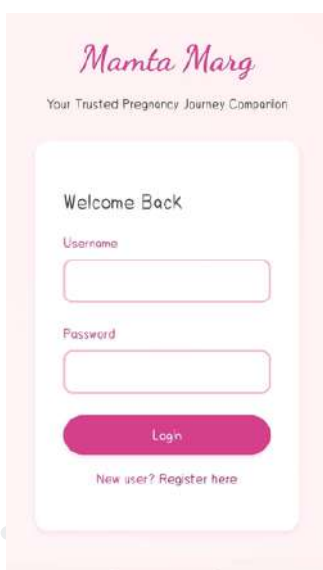
Team Members

Srushti Ravindhra
Shama Nettar

Sharanya K G
Sneha S

Solution

Mamta Marg provides a user-friendly platform covering prenatal nutrition, exercise, mental well-being, and childbirth preparation. It features personalized tools for tracking health and appointments, helping mothers stay organized. Community support is vital, connecting expecting mothers with peers and professionals for advice and emotional support. Interactive forums and live Q&A sessions with healthcare experts ensure prompt answers to user questions. By leveraging technology and collaboration, Mamta Marg empowers mothers-to-be with the knowledge and confidence to embrace their pregnancy journey joyfully and assuredly.



Project Title

MAKEMYTOUR- CRAFTING UNFORGETTABLE TRAVEL EXPERIENCES



Problem Statement

The challenge is to develop an all-in-one, user-friendly website that integrates multiple services—bike rental, car rental, tourist guide booking, and hotel booking—into a single, secure platform. This platform should provide tourists with a seamless experience, allowing them to compare options, check real-time availability, and make secure payments for all services in one place.

Project Team



Team Members

Tarun S G
Vishwas B J

Suprith S
Venkatesh R K

Solution

We are developing a blockchain-based platform designed to provide tourists with a secure, all-in-one solution for booking transportation, accommodations, and guided tours. This platform will integrate essential services such as bike rentals, car rentals, hotel bookings, and tourist guide reservations into a single, intuitive interface, simplifying trip planning for users.

The platform's blockchain technology ensures that all transactions are secure, transparent, and tamper-proof, protecting user data and payments. A secure login page will safeguard personal accounts, while an AI-powered chatbot will provide real-time assistance, helping users navigate the platform, answer questions, and offer personalized travel recommendations.



Project Title

SMART PARKING SYSTEM FOR INTERNATIONAL HIGHWAY ASSIST



Problem Statement

Traditional shopping mall mirrors provide a limited view and lack interactivity. Customers often struggle to visualize how clothes would look on them without physically trying them on, leading to indecisiveness and potential dissatisfaction with purchases.

Project Team



Team Members

Srivalli S Sharma
Shubhashree B Badiger

PG Ayush Rai
Priyanshu Kumar Gupta

Solution

Begin by creating a basic web interface using HTML, incorporating AR.js or A-Frame for augmented reality features. Design a user-friendly layout where the webcam feed is clearly visible. Include a sidebar with thumbnails of available virtual clothing items for easy selection. Utilize AR.js or A-Frame to track the user's body and overlay the chosen clothing on the live feed. Implement a simple click interaction for seamless switching between clothing options. Ensure the virtual attire adapts to the user's movements for a realistic experience. Add buttons for additional interactions, like rotating views or adjusting fit, to enhance user engagement.



Project Title

OPEN INNOVATION – HELIOTROPISM



Problem Statement

To develop a non-electrical device to track the sun's movement, optimizing solar panel efficiency. Fixed solar panels miss peak sunlight, reducing energy generation. The device should use mechanical systems instead of electrical components to simplify maintenance. Key challenges include creating a reliable tracking mechanism and ensuring adaptability to various locations. Potential solutions could involve passive tracking methods or mechanical gears. The goal is to design a user-friendly and durable device that significantly enhances solar energy output. This innovation could promote wider adoption of renewable energy, especially in resource-limited areas.

Project Team



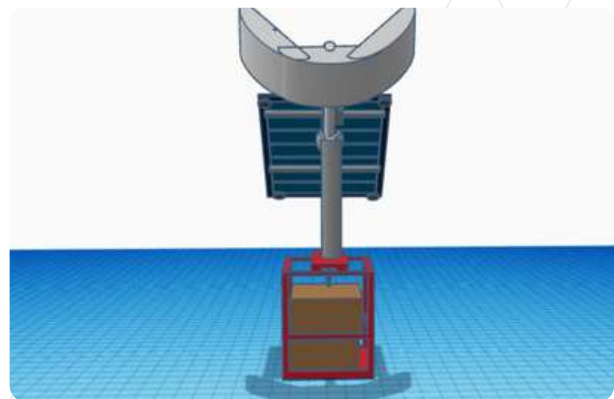
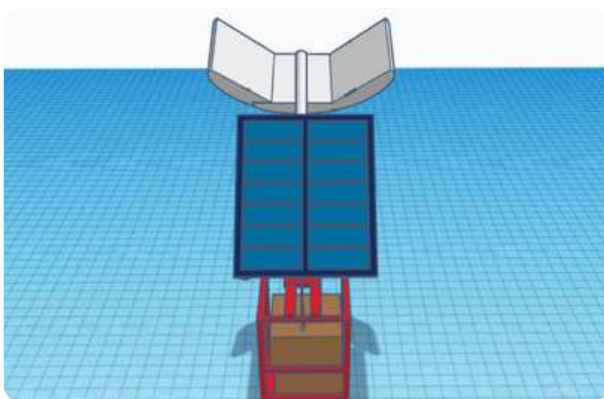
Team Members

Bhavisu Gangamma
Bhoomika K N

Krithick Karumbaiah C S
Hrishi B D

Solution

Solar tracker begins with the parabolic dish collecting sunlight and focusing it onto a tube containing industrial wax. As the sunlight heats the wax, it expands, driving a piston that adjusts the position of the solar panels. The tracker then moves throughout the day, following the sun from east to west to maximize energy capture. This mechanism is capable of lifting significant weights, demonstrating its strength and reliability. At the end of each day, the tracker resets to its starting position in preparation for the next day's tracking. On cloudy or rainy days, the tracker may struggle to start tracking effectively, potentially missing optimal solar capture periods. This entire design operates mechanically, eliminating the need for motors or electronic controls, which enhances its durability and reliability. Overall, this method effectively harnesses solar energy and contributes to improved sustainability.



Project Title

ALERTXPRESS: DETECTING DANGER,CONNECTING TO RESCUE



Problem Statement

In India, delays in emergency response after road accidents lead to high fatalities. In 2023, about 1.6 lakh people died in road accidents, averaging 53 accidents and 19 deaths per hour.

Nearly 50% of these deaths could have been prevented with medical care within the "golden hour" (the first hour after an accident.)

Many people are often in a state of shock after witnessing an accident and are hesitant to call the authorities, fearing they may later be called in for interrogation.

Project Team



Team Members

Md Fakruddin S
Mayank M

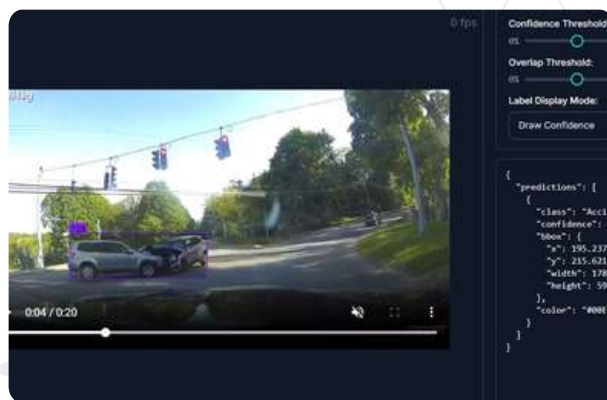
Rohan Lobo
Md Shoaib Shuja

Solution

AI model that detects accidents in real-time using video feeds, then automatically notifies authorities for immediate response. By providing instant notifications, the system ensures faster response times from emergency services, reducing the risk of casualties and improving the chances of life-saving intervention. Provides timestamped accident snapshots, delivering crucial, unbiased evidence to support law enforcement and legal proceedings. The idea is feasible with current AI technology, supported by existing infrastructure, and justified by reduced casualties and improved emergency response times.



Accident Detected in GUI



Prediction and Confidence Threshold

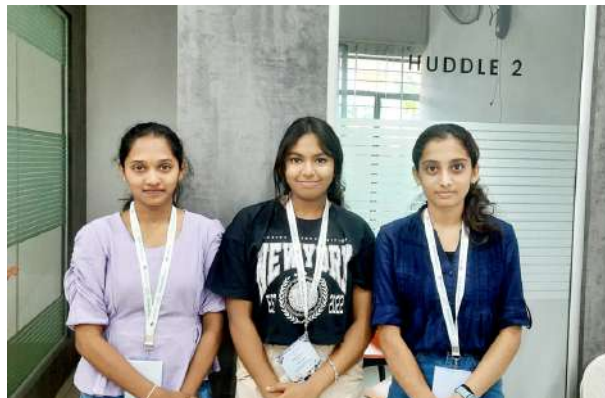
Project Title

HEALTHCARE AND WELL BEING

Problem Statement

In today's fast-paced world, patients often encounter barriers to accessing timely healthcare services, including long wait times, difficulty in scheduling appointments, and challenges in managing medical records.

Project Team



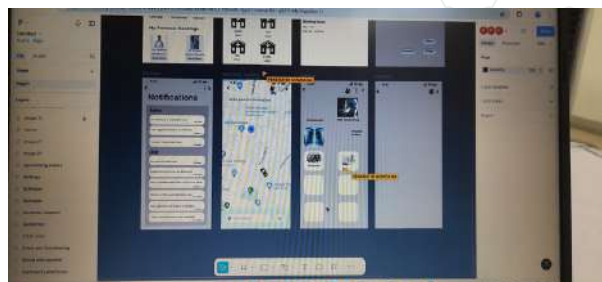
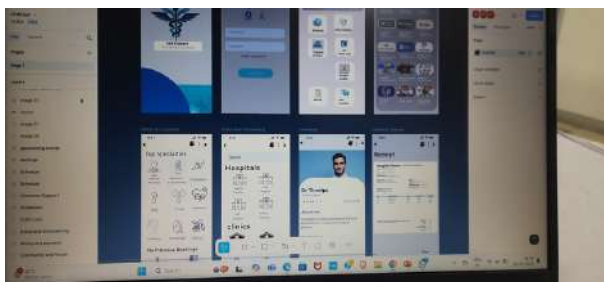
Team Members

Mythri Nagashree N
Prakruthi Gowda B A

Inchara C

Solution

The app will enhance patient engagement by providing real-time notifications and reminders for appointments and follow-ups, which will help reduce missed visits and improve health outcomes. It will feature personalized health tips and resources tailored to individual needs, empowering users to manage their well-being proactively. To accommodate a diverse user base, the platform will offer multi-language support, ensuring inclusivity. Healthcare providers will gain access to advanced analytics tools to monitor patient progress and refine care plans. This innovative solution seeks to connect patients with healthcare services more effectively, fostering a responsive and integrated healthcare ecosystem.



Project Title

WASTE MANAGEMENT AND RECYCLING

Problem Statement

Increased waste highlights the need for innovative, community-driven solutions. Establishing partnerships among local businesses, non-profits, and governments can create accessible recycling centers for education on sustainability. Improving food distribution via technology can connect surplus food with those in need, while community gardens empower residents, fostering collaboration for a sustainable future.

Project Team



Team Members

Ganavi H B Monalisa. B.S.

Solution

This initiative promotes environmental responsibility while building community and innovation among students. By converting discarded cigarette butts into educational models, schools can educate students about sustainability and waste reduction. A digital application also connects volunteers with those in need, making it easier to provide assistance and resources. This comprehensive approach demonstrates how creativity and technology can tackle societal challenges, encouraging students to think critically and act compassionately. Together, these efforts emphasize the potential for positive change when education is paired with environmental awareness.

Technology+humanity=development of earth.



Solution 1:

- **Recycling of cigarette butts** : according to WHO (world health organisation) an estimated 4.5 trillion cigarette butts are thrown away each year, making them the most common form of litter in the world
- **Environmental impact**:the filters in these butts are made up of non biodegradable plastic that contains toxic chemicals : leads to pollution.

Project Title

NAMMA MYSORE



Problem Statement

Mysore, known for its cultural heritage, faces challenges in sustainable tourism, including: Lack of information on local attractions and events. Difficulties navigating the city's layout and transport. Overcrowding at popular sites like Mysore Palace, causing long wait times. Pollution affecting both visitors and local residents.

Project Team



Team Members

Shreya DV
Pavithra B

Chandini V

Solution

Carbon Footprint Tracking: Users can input their travel plans, including the number of days in Mysore, to receive a personalized assessment of their carbon footprint. Eco-Friendly Itinerary Planning: The platform suggests eco-conscious travel options, including transportation methods, accommodation, and activities that minimize environmental impact. Local Food Recommendations: Highlighting restaurants and cafes that prioritize local, organic, and sustainable food options, encouraging visitors to support local businesses. Realtime Event Information: Provide details about local events, festivals, and cultural activities, helping tourists engage with the community while reducing their carbon footprint.



Project Title

STREET VENDORS EMPOWERMENT

Problem Statement

Street vendors face challenges in reaching a wider customer base, managing secure transactions, and increasing their visibility in urban areas. Limited access to technology and formalized marketplaces often restricts their growth potential and stability, impacting their income and sustainability. This project aims to address these issues by providing a digital platform that enhances vendor visibility, facilitates cashless payments, and allows customers to locate vendors in real-time, ultimately supporting street vendors in achieving economic empowerment and sustainable livelihoods.

Project Team



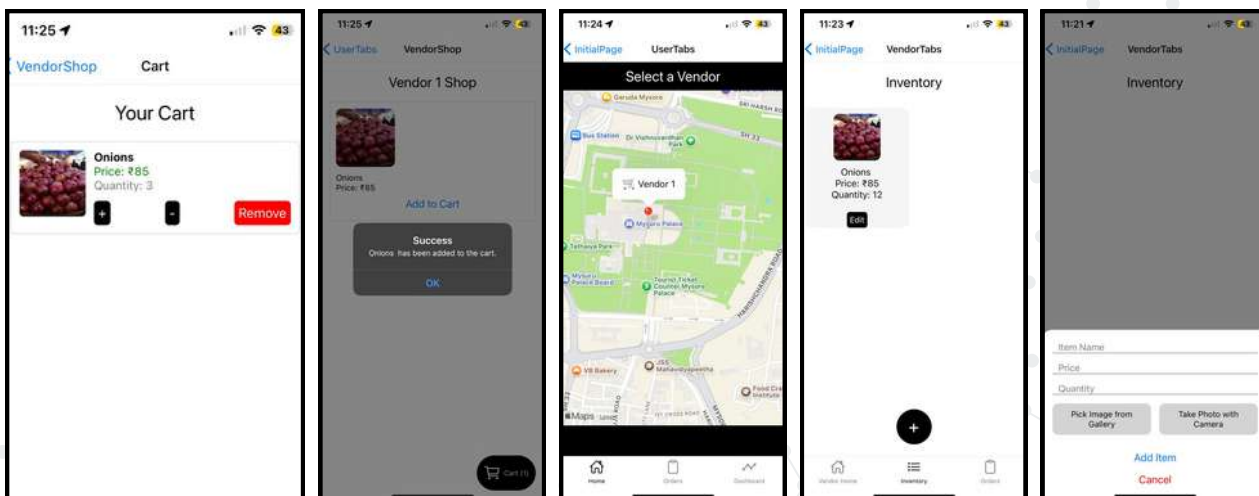
Team Members

Geethika Sunkara
Kunal Kiran

Nishant Reddy
Arjun Syam

Solution

Our solution is a mobile application that empowers street vendors with essential digital tools to expand their reach, boost sales, and operate efficiently. The app features an e-cart system for easy product listing and inventory management, live location sharing to help customers find vendors in real-time, and integrated cashless payment options to ensure secure, convenient transactions. Additionally, vendors can access analytics for sales insights, promotional tools to attract customers, and training resources to build digital skills. This platform transforms street vending into a more accessible, profitable, and sustainable venture, fostering economic growth and community resilience.



Project Title

SUSTAINABLE TOURISM DEVELOPMENT

Problem Statement

Sustainable tourism must balance the needs of travelers, the environment, and local communities. Collaboration among stakeholders is essential, alongside robust strategies promoting eco-friendly practices and responsible travel. Educating tourists and investing in conservation are vital for ensuring tourism growth benefits resources and enriches future generations' experiences.

Team Members

Aashish.S.Shirahatti
tanishq.S.Vernekar

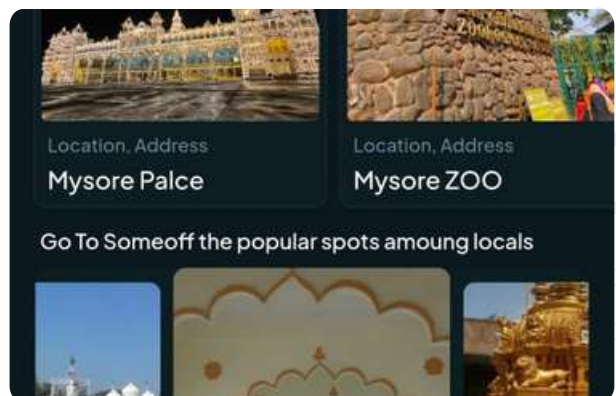
Uthkarsh Gowda.V
Vinochan.S.Nayak

Project Team



Solution

Our app focuses on tourism and supporting street vendors by helping users discover popular attractions and local food spots frequented by residents. It showcases lesser-known destinations for visitors seeking more than just the main attractions. Offering transportation options via a government bus planner, the app includes certified tourist guides with approved fees. Users can customize trips based on budget and comfort preferences, selecting genres that align with their interests, such as historical or adventurous. An AI bot provides additional suggestions, enhancing the overall experience and encouraging tourism to street vendors.



Project Title

HEALTHMATE



Problem Statement

- Patients endure long wait times and uncertainty due to ineffective token systems in healthcare.
- Long wait times lead to patient dissatisfaction, increased anxiety, and strained healthcare resources, negatively impacting the quality of care.

Project Team

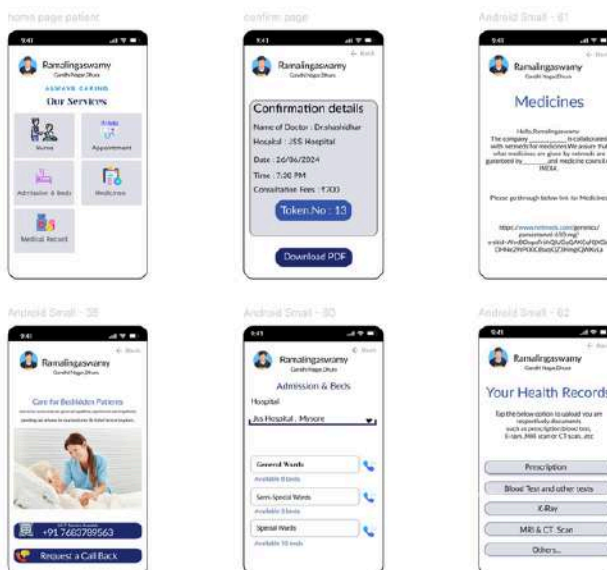


Team Members

Pratheeksha N Patel
Niranjan
N Dalapathi
Suhas N

Solution

- Our digital solution sends real-time token updates to patients via a mobile app or SMS, allowing them to avoid unnecessary waiting in the clinic.
- This enhances their experience by reducing anxiety and enabling better time management.
- Timely notifications about token status, reducing wait times and uncertainty, and allowing patients to use their time more effectively.



Project Title

RAIL GUARD “SECURING EVERY MILE”

Problem Statement

India is among the countries which are having the largest railway infrastructure, With over 23,000+ trains runs daily through 7,000+ stations. Whenever such accidents happens a lot of humans ,reputational, financial, operational losses occurs. When two train are on the same track (because no well developed infrastructure).When there is any obstacles on the track (we don't have the currents status of the track).When the driver is negligible (as the engine is manually operated).To over this problem we designed rail guard which not only provide advanced security but also transform the entire railway system with futuristic technology.

Project Team



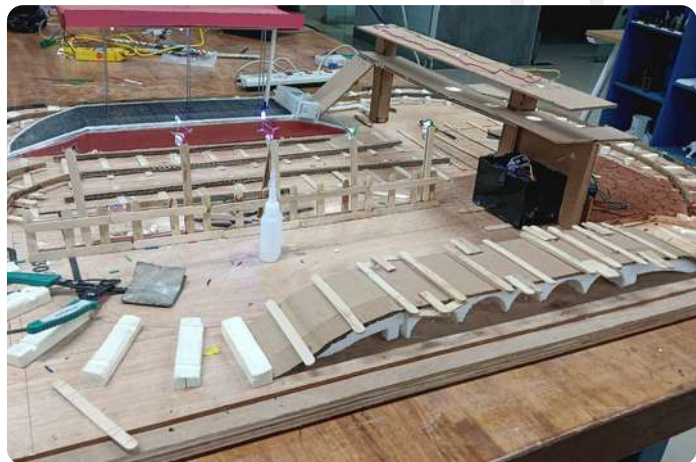
Team Members

Vinaykumar T
Somanath Patil

Sameer Magi

Solution

“Rail Guard is “going to be forefront of innovation in Indian railway tec.hnology ,specializing in transforming both existing and next-generation locomotives . Our Aim is to enhance safety and efficiency across railway operations while prioritizing the security of tracks, trains, and most importantly human lives. By including this advanced camera sensor and CATSS (comprehensive automated train security system) , we are automating the train engines and enhancing the productivity and technology which will ensure a revolutionary change in the Indian railway system. This CATSS integrates cutting-edge technologies that mitigate risks and optimize performance, ensuring a safer and more reliable rail network. By integrating this advanced solution with the support of the Indian government, we are confident in our ability to save lives, protect assets, and drive sustainable growth in the railway sector.



Project Title

SAMRUDHHA

SUPPORTIVE ACCESS FOR MICRO-ENTREPRENEURS IN ROBUST UNIFIED DEVELOPMENT FOR HOLISTIC AND HARMONIOUS ADVANCEMENT



Problem Statement

The core problem centers on the persistent challenges faced by street vendors, marked by a lack of security and stability in their operations. Without insurance or safeguards, vendors are vulnerable to theft, health risks, and product loss, while negative perceptions of quality diminish customer trust. Limited access to formal financial services traps many in high-interest debt, and complex regulatory requirements expose them to harassment. Additionally, inconsistent income due to weather and insufficient access to digital tools restricts growth. This situation not only hampers vendors' livelihoods but also limits their potential contributions to the local economy.

Team Members

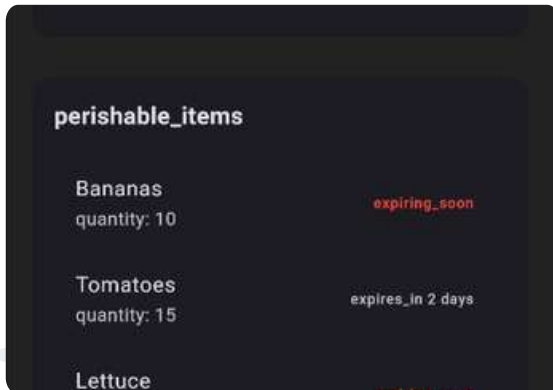
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Project Team



Solution

Samrudhha offers a comprehensive solution to empower street vendors by enhancing their visibility, safety, and profitability through a user-friendly mobile app. The app includes proximity notifications to alert nearby customers, real-time weather updates to help vendors plan their sales, and a market analysis dashboard that provides insights into price trends and demand fluctuations. With features like language toggle to Kannada for accessibility, SOS for emergencies, and automated inventory management to manage perishable items, Samrudhha simplifies vendor operations and supports sustainable business growth. By integrating digital payment solutions, vendor training programs, and partnerships with local governments, Samrudhha is designed to improve the livelihood of street vendors while contributing to urban economic development.



Project Title

WASTE MANAGEMENT AND RECYCLING

Problem Statement

Timely action is crucial to tackle blockages, preventing flooding and infrastructure damage. Regular drainage maintenance, installing grates for debris, and promoting proper waste disposal can enhance system efficiency. Additionally, deploying a team to clear existing blockages and assess pipe conditions will restore water flow and reduce future issues.

Project Team



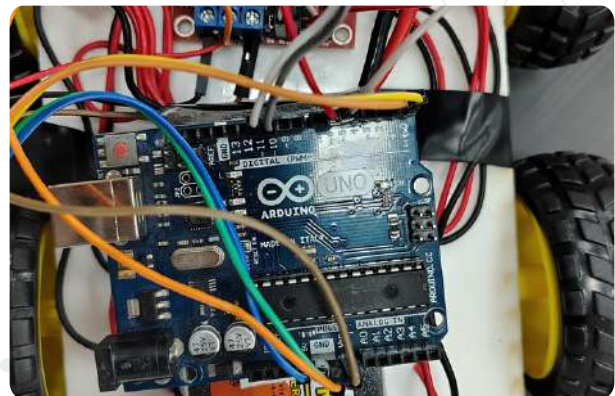
Team Members

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Solution

The bot should be equipped with sensors to navigate drainage pipes, allowing it to maneuver around obstacles and access hard-to-reach areas. A camera system will enable real-time monitoring of the cleaning process and provide insights into the drainage system's condition. With powerful suction and rotating brushes, it can effectively remove debris while a filtration system prevents blockages. Designed for autonomous operation using AI, it adapts to various environments. Durability is essential for withstanding harsh conditions, and a compact design ensures easy maintenance. Integrating data collection allows for analysis of system health, improving predictive maintenance and reducing blockage risks.



Project Title

SMART VENDING MACHINE

Problem Statement

In today's fast-paced urban environments, there is a growing need for public infrastructure that not only offers convenience but also enhances safety and accessibility. Travelers, particularly women, often face safety concerns during late-night commutes, while tourists may struggle to find information about local attractions. Additionally, existing vending solutions often lack customization options and fail to engage the community in meaningful ways. There is a need for a versatile, multifunctional vending machine that can provide essential services such as emergency communication, personalized information displays, and targeted advertising, while also fostering a safer and more inclusive public space. How might we design a movable vending machine that addresses these needs by improving the travel experience, ensuring safety, and enhancing accessibility for diverse users?

Solution

Introducing our cutting-edge smart vending machine, an innovative solution designed with sustainability and user convenience in mind. Made from e-waste materials and powered by efficient lithium batteries, this machine is not only eco-friendly but also highly functional. In emergencies, users can quickly access essential first aid items, including bandages, cotton, tincture iodine, and an ECG machine, all available via an intuitive touchscreen that facilitates secure online payments. The machine also enhances the travel experience by showcasing nearby tourist attractions during peak seasons. For added safety, it provides women with the ability to make emergency calls to police or help centers late at night. Users can customize the display language to their preference, ensuring accessibility for everyone. Additionally, this movable vending machine serves as a platform for targeted advertising, making it a versatile addition to any location that prioritizes community health, safety, and engagement.

Project Team



Team Members

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Chinmayi M H

Project Title

SUSTAINABLE SOLAR TRACKER

Problem Statement

Current solar panel systems lose significant efficiency due to the static positioning of panels, which restricts the capture of solar energy as the sun moves throughout the day. Fixed solar installations often fall short in energy output, particularly during early mornings and late afternoons, leading to increased costs and underutilized renewable resources. The challenge is to design a sustainable solar tracker that can follow the sun's path, enhance energy capture, and utilize eco-friendly, durable materials that ensure long-term, low-energy operation with minimal environmental impact."

Project Team



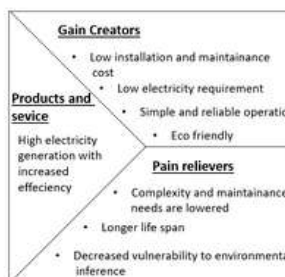
Team Members

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Solution

This solar tracking system features a water-based balancing mechanism, where two water containers positioned on either side of the solar panel shift water as the sun moves from east to west, causing the panel to tilt toward the sun without any sensors or extra power. By relying on gravity and the earth's rotation for alignment, it operates entirely passively, making it energy-efficient and ideal for remote locations. Constructed from sustainable, recyclable materials such as bioplastics or recycled metals, it has a low environmental impact. With minimal mechanical parts, the system requires little maintenance and is highly durable. Its design excludes active electronics, utilizing natural forces to keep costs low and accessible for areas with limited resources. This simple, low-tech approach promotes the accessibility of solar technology in remote and off-grid installations, encouraging broader adoption.



Project Title

MYSORE EXPO

ONE DISTRICT ONE TOURISM APP

Problem Statement

- People visiting Mysuru face challenges like long-ticketing queues.
- Limited access to information on local attractions and ongoing events.
- People find difficulty in finding reliable guides.
- There is a need for a centralized digital solution.

Project Team



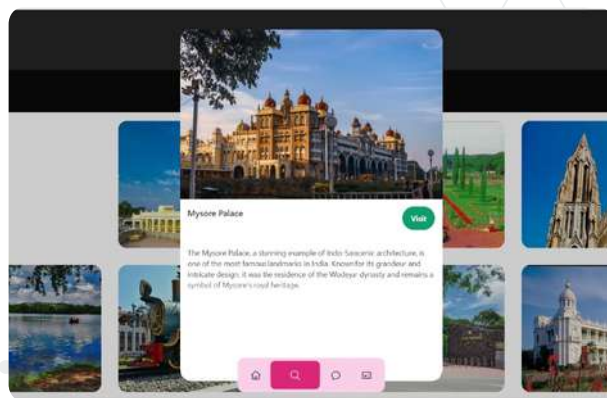
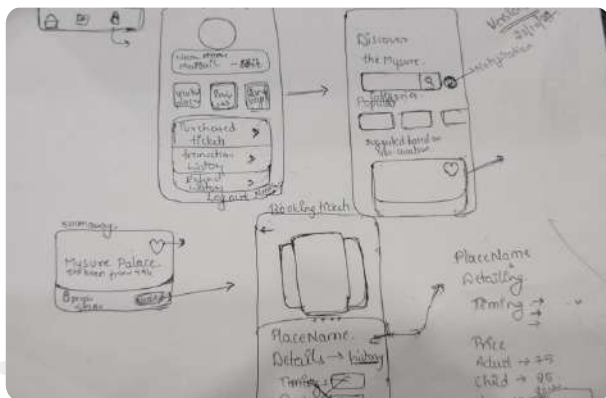
Team Members

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Solution

- Provides detailed information of the events, museum, guide contact.
- AI chat assistance for planning.
- Simple and well maintained UI/UX experience.
- Supporting multiple languages, ensuring a seamless and enriching experience for both local and international tourists.
- The solution we are proposing will have centralised ticket booking through-out Mysuru using QR-based ticketing booking.



Project Title

SMART PARKING SYSTEM FOR INTERNATIONAL HIGHWAY ASSIST



Problem Statement

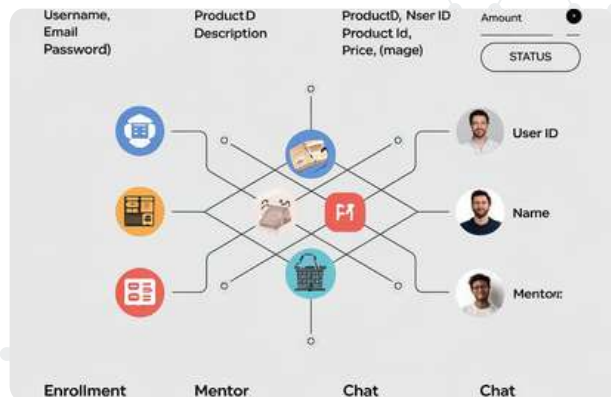
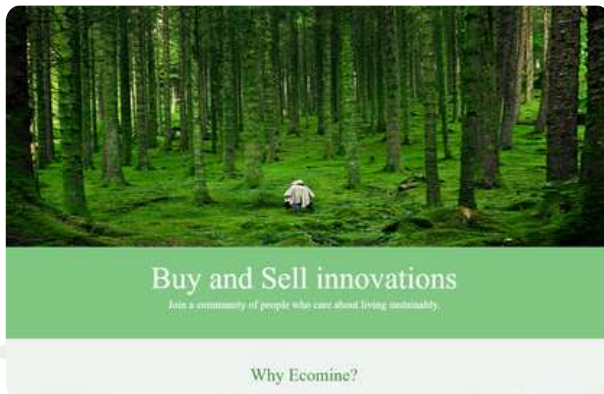
Many innovative products and solutions struggle to gain visibility, making it challenging for creators to reach their ideal customers. Aspiring entrepreneurs also face difficulty in accessing essential resources, such as mentorship and educational content. This lack of exposure and support limits the market potential for valuable innovations, leaving both creators and consumers missing out on opportunities.

Team Members

Vikas. N
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Solution

- **Marketplace for Innovative Products:** A centralized platform where users can display and sell their unique products, making it easy for potential buyers to find and explore fresh ideas.
- **Entrepreneurship Courses:** Online courses cover essential topics like business strategy, marketing, product development, and financial management, equipping aspiring entrepreneurs with the skills they need to succeed.
- **Mentorship Opportunities:** Users can connect with experienced mentors who provide guidance and support, helping innovators tackle market challenges.
- **Networking and Community Building:** A chat section enables users to connect, collaborate, and share experiences, building strong relationships among fellow innovators and entrepreneurs.
- **Reels Section for Engagement:** Users can create and post short videos to showcase their products and insights, boosting interaction and sharing within the community.
- **Streamlined Purchasing Process:** With a user-friendly interface, the platform makes it easy for buyers to browse and purchase products, leading to greater satisfaction and more sales for innovators.



SCAN ME



Project Title

SERVE FORWARD: "TOGETHER, WE ADDRESS HUNGER AND MINIMIZE WASTE"

Problem Statement

Every day, vast quantities of food are wasted, especially in the hospitality industry, leading to significant environmental strain and unsustainable waste management challenges. At the same time, a large number of underprivileged individuals continue to face food insecurity, struggling to access nutritious meals.

Project Team

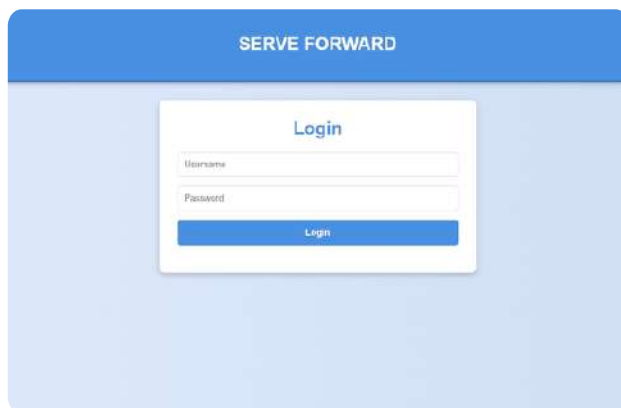


Team Members

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Solution

Serve Forward aims to tackle food wastage by efficiently redistributing surplus food from restaurants, events, and households to orphanages, old-age homes, and shelters. By creating a bridge between food donors and those in need, the project provides a sustainable solution to food insecurity and reduces wastage



Project Title

INTELLIGENT TRASH BIN FOR AUTOMATIC WASTE SEGREGATION & MONITORING



Problem Statement

This project addresses challenges in waste management, including ineffective segregation, increased landfill reliance, and health risks associated with manual sorting. It proposes an Intelligent Trash Bin for Automatic Waste Segregation and Monitoring, aiming to enhance waste segregation accuracy and provide valuable insights into waste disposal trends for environmental and economic improvements.

Project Team



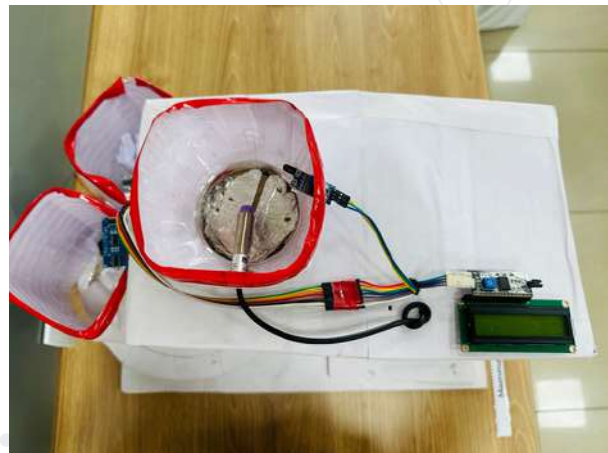
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Solution

Create a system using sensors to automatically identify and classify different waste types. Incorporate various sensors, such as ultrasonic, wet, and metal detectors, for accurate waste categorization. Implement a servo motor-operated rotating bin to enhance waste separation. Each bin will feature an ultrasonic sensor to track the trash level, allowing for real-time measurement of the bin's height. This innovative approach aims to streamline waste management and improve recycling efficiency.



Project Title

SMART FUEL DISPENSARY METER

Problem Statement

There is a persistent issue of fraudulent activities occurring in fuel dispensing systems, where customers are being misled about the actual quantity of fuel they receive, leading to financial losses and decreased trust in fuel stations. Identifying and addressing the specific methods and technologies used in these scams is crucial to ensure fair transactions and restore consumer confidence.

Project Team



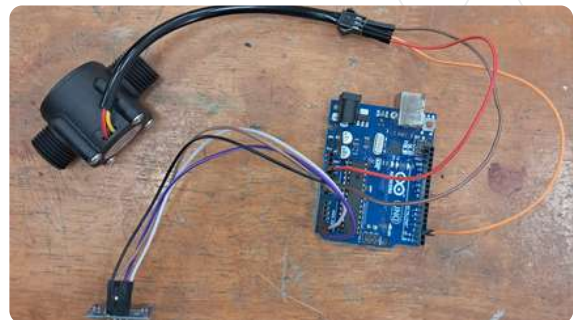
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Solution

A proposal has been introduced for a highly accurate and tamper-resistant fuel dispensing meter to address ongoing issues in the industry. This advanced meter will ensure precise fuel delivery, minimizing fraud and fostering fair transactions. By integrating robust security features and real-time monitoring capabilities, this innovative solution aims to enhance consumer trust and uphold integrity in fuel dispensing systems, ultimately benefiting both businesses and customers.



Project Title

DIABTRACK : A PERSONALIZED FOOD RECOMMENDATION SYSTEM BASED ON SYMPTOMS, GLUCOSE MONITORING AND USER EDUCATION



Problem Statement

Diabetes management requires constant monitoring of unpredictable blood sugar levels, with early warning signs like thirst and fatigue indicating potential severe complications such as heart disease. The condition leads to physical and mental exhaustion, and feelings of isolation, affecting quality of life.

Project Team



Team Members

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Solution

The solution provides essential tools for managing diabetes effectively. It offers personalized food recommendations tailored to specific symptoms, ensuring better blood sugar control. A medication reminder sends timely alerts to help users adhere to their schedules. The app includes glucose and blood pressure monitoring with easy-to-read trend graphs for better tracking. Additionally, a nutrition calculator analyzes meal content, guiding informed dietary choices. Users can access a nearby medical services locator to find pharmacies and hospitals within 5km. Finally, an educational chatbot delivers reliable guidance on food, medication, and meditation, ensuring comprehensive support in diabetes management.



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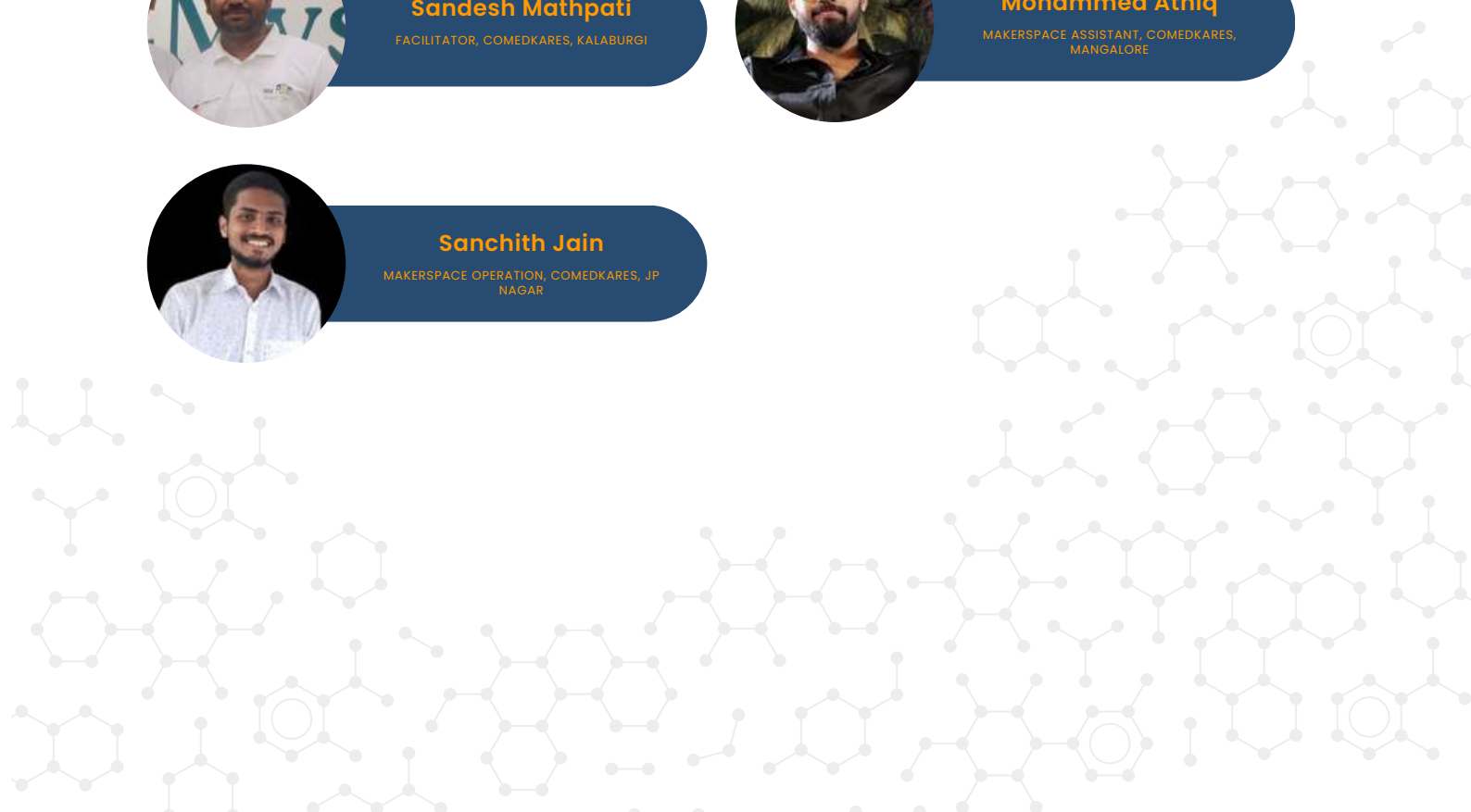
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technocrats for the future*



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