



COMED KARES
INNOVATION HUB

JP NAGAR CENTER

BENGALURU

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AROMATIC FLUSH SYSTEM: INTEGRATING SODA AND VINEGAR FOR ENHANCED TOILET HYGIENE

PROBLEM STATEMENT

Public toilets are having pungent odour of urine that is hard on olfactory senses as well as lack of hygiene due to improper maintenance which makes it unusable. Presently, exhaust fans, high raised ceilings with ventilating window and used to get out this smells but its not very effective since the people using these toilets are more. Maintenance has been a big issue since finding proper staff, improper supply of cleaning materials and lack of infrastructure .

TEAM MEMBERS



Kusumanjali S
Shwetha B S
R Vishnu Das

SOLUTION

The team has selected the idea of using Vinegar and baking soda to neutralize the smell of public toilets. Vinegar is chemically acetic acid and baking soda is sodium bicarbonate. When the two interact a neutralisation reaction occurs between the two , and the brisk effervescence of CO₂ acts as a mild scrubbing agent which not only cleans the surface of the toilet but also removes the smell.



A DOORWAY SOLUTION TO SWIFTLY CLEAR STAGNANT WATERS IN PUBLIC TOILETS

PROBLEM STATEMENT

Old and poorly maintained public toilets face a dual challenge of stagnant water accumulation on their floors and heavy foot traffic, making them breeding grounds for mosquitoes and other insects. Stagnant water not only impedes the movement of people in and out of these facilities but also fosters unsanitary conditions. The continuous influx of visitors contributes to muddy footprints, further deteriorating hygiene levels. This predicament not only poses a challenge for users but also raises concerns about the spread of diseases. Urgent attention is needed to revamp the infrastructure, introduce proper drainage systems, and implement regular cleaning protocols to address these issues.

TEAM MEMBERS



Mahananda

K MANOJ
Mary Punitha

SOLUTION

As users open the toilet door to enter, the door's bottom edge is equipped with drainage channels. These channels are strategically designed to displace stagnant water on the floor, redirecting it away from the entrance area. This ingenious mechanism ensures that water is efficiently moved aside, preventing inconvenience and messy footprints for those using the facilities. The Doorway Drainage concept is a cost-effective and user-friendly solution, providing an immediate remedy to the challenges posed by stagnant water in public toilets. By implementing this innovative approach, we aim to enhance the overall cleanliness and hygiene of these spaces, making them more user-friendly and conducive to a healthier environment."



JP NAGAR CENTER

REVOLUTIONIZING URINAL HYGIENE: INNOVATIVE FLOOR SYSTEM FOR A CLEAN AND DRY EXPERIENCE

PROBLEM STATEMENT

Traditional restrooms are designed with steep corners. This makes it very difficult to efficiently clean the floors. Public restrooms are with poor restroom door accessories such as handles, handrails, and door locks to accelerated wear and tear. Stagnant water in public restrooms can harbor huge amounts of pathogens that can be easily transferred to the users. This is because they are used by many people daily. Poor ventilation is another major problem that users face in public restrooms. Without a constant flow of fresh air, pungent smells remains.

TEAM MEMBERS



**Chirag GP
Maheshwari**

**Nithin
Navya**

SOLUTION

In a proactive approach to combat water accumulation near urinals, a groundbreaking solution is on the horizon. The introduction of an additional floor layer, equipped with strategically placed pores, promises to effectively drain stagnant water and any accidental spills. This innovative flooring concept aims to maintain a consistently dry and tidy environment, elevating the overall hygiene standards of public toilets. By preventing water pooling, the new system not only enhances cleanliness but also ensures a more pleasant experience for every user. This forward-thinking initiative marks a significant step in redefining restroom standards, contributing to improved sanitation and user satisfaction.



SMART WATER CONSERVATION IN PUBLIC TOILETS

PROBLEM STATEMENT

Apart from the lack of standard hygiene practices of the public toilets in India, these facilities continue to be in a poor shape due to low awareness about proper sanitation practices among the people of India. Water management has been a crucial task in public toilets, either there is scarcity of water or there is wastage of it. Some people leave the toilet without flushing it and some people will open the tap & leave without closing it. Per day minimum of 45 liters of water is being wasted in every public toilet. This is mainly due to lack of awareness among the users and also due to leakage of pipes and irregular maintenance. Proper water management is very important in public toilets.

TEAM MEMBERS

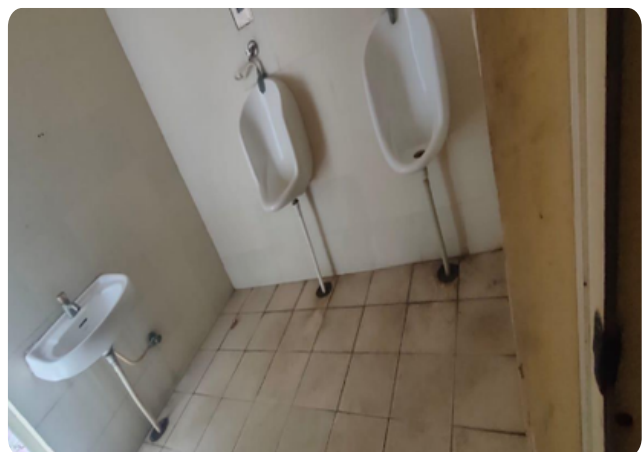
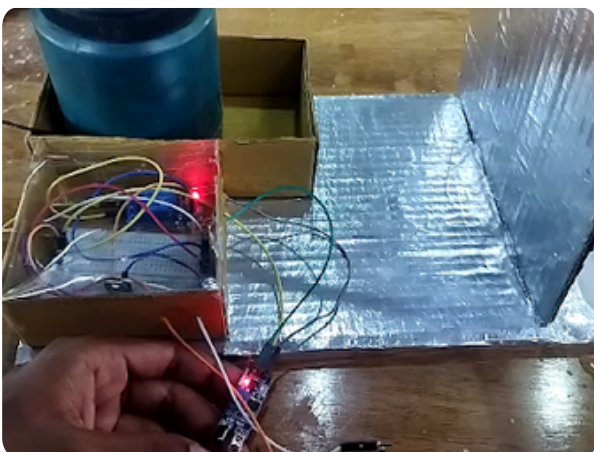


Divya M
A Sahana

Swetha C
Punith M C

SOLUTION

Automated taps that activate only when a user approaches. The key focus during development was not just water conservation but also low maintenance and prevention of water leakage. To achieve this, a small pump was integrated to efficiently draw water from a compact tank. This strategic design not only minimizes the need for frequent maintenance but also mitigates the risk of water leakage, ensuring a sustainable and user-friendly solution. By incorporating smart technology, we aim to revolutionize public toilet facilities, promoting water conservation without compromising on convenience. This thoughtful approach aligns with our commitment to creating solutions that not only solve problems but also prioritize efficiency and long-term sustainability.



INNOVATIVE WASTE MANAGEMENT: FROM COMPRESSION TESTING TO PROTOTYPING

PROBLEM STATEMENT

Traditional restrooms are designed with steep corners. This makes it very difficult to efficiently clean the floors. Public restrooms are with poor restroom door accessories such as handles, handrails, and door locks to accelerated wear and tear. Stagnant water in public restrooms can harbor huge amounts of pathogens that can be easily transferred to the users. This is because they are used by many people daily. Poor ventilation is another major problem that users face in public restrooms. Without a constant flow of fresh air, pungent smells remains.

TEAM MEMBERS

**Mrudula
Lekhana**

**Allen
Annapoorneshwari**

SOLUTION

Our journey to create an efficient waste management solution began with a comprehensive analysis of manual compression, gauging its potential impact on our design. Once satisfied with the results, the team delved into the intricate process of designing various components of the dustbin using Onshape. Leveraging the versatility of laser cutting technology, some components were precisely cut, while others were manually crafted using power tools to optimize both time and cost. The meticulously designed prototype was then assembled, marking a crucial phase in the development process. Rigorous testing followed, involving varying amounts and types of garbage to assess the compression efficiency under diverse conditions.



SMART WATER RECYCLING SYSTEM

A SUSTAINABLE APPROACH TO SINK OVERFLOW

PROBLEM STATEMENT

Because of the huge population in India there is a scarcity of water mostly in densely populated areas like cities and towns. Water scarcity affects the public toilets badly. The scarcity of water which has resulted in problem in maintaining the public toilets. Another problem is people are not properly using the water. Some people even won't close the tap after use. There is no proper maintenance in the public toilets which will lead to leakage of pipes, broken pipes etc. So that a lot of water is being wasted in a day. Water management has been a crucial part in public toilets.

TEAM MEMBERS

Chandan S
Sathvik Mittal

Harshini P
Anjali R Krishna

SOLUTION

Excess water from the sink is channeled into the flush tank, presenting an eco-friendly water conservation solution. In the event of a sink overflow, the surplus water is judiciously stored in the flush tank, preventing any wasteful discharge. This stored water serves a dual purpose by being utilized during flushing, advocating a sustainable approach to water consumption. Beyond efficient water management, this system contributes significantly to environmental conservation by repurposing overflow for a practical and meaningful use. By integrating such measures, we not only curtail unnecessary water waste but also actively engage in resourceful practices, aligning with a broader commitment to ecological sustainability.



ECONOMICAL TOILET REVITALIZATION: TRANSFORMATIVE FLOOR MAT SYSTEM

PROBLEM STATEMENT

While it is well known that public bathrooms are the most unhygienic places so that people has to take extra care to keep them clean after using it. Most of the common people who are using the toilets are working on roadsides or like street vendors. As they are walking through dirty, muddy roads their shoes also get dusty. So as soon as they enter the toilet their foot prints starts to appear on the floor. It will be difficult or uncomfortable for the next person using it and also difficult for the cleaning staff to clean every time after use.

TEAM MEMBERS

Manoj Kumar C
Mohana Priya

Pallavi G
Nisarga R

SOLUTION

Revitalizing existing public toilets on a budget involves strategic upgrades, starting with the introduction of cost-effective floor mats. Three layers of mats are implemented to enhance cleanliness without necessitating new construction. The first mat tackles coarse debris, preventing mud and other particles from entering the restroom. A secondary mat addresses finer particles, such as mud and tiny stones, ensuring a cleaner environment. The final layer consists of a cotton/cloth mat designed to absorb water and dampness, minimizing slippery surfaces and promoting user safety. This multi-mat system not only improves overall hygiene but also proves to be an economical and practical solution.



HYGIENE INNOVATIONS: INTRODUCING AUTOMATIC FLUSH SYSTEM FOR PUBLIC TOILETS

PROBLEM STATEMENT

Public toilets in India often suffer from deplorable conditions, deterring people from use due to unhygienic environments. Individuals, either out of reluctance to touch unsanitary surfaces or a lack of awareness, may exit without flushing, leaving urine in the bowl. This practice contributes to the overall unpleasantness and uncleanness of these facilities. The challenge lies not only in improving the physical conditions of these toilets but also in fostering awareness and promoting hygiene habits to ensure a more comfortable and sanitary experience for users

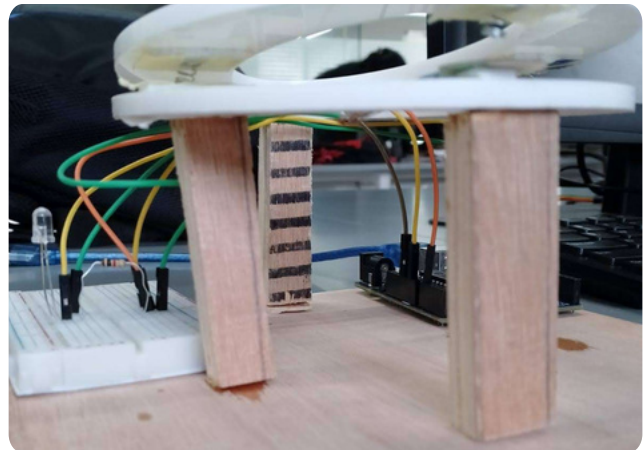
TEAM MEMBERS

Nayana shree
Chandana k

Darnish M
Madhu VR

SOLUTION

Addressing the prevalent issue of unflushed public toilets in India, the proposed solution involves an innovative Automatic Flush system. The commode is equipped with springs positioned between two layers. The weight exerted on the springs, resulting from a person sitting, is sensed. Once the individual leaves, and the springs decompress, triggering an automatic flush mechanism. This eliminates the need for users to manually engage with potentially unhygienic flush buttons, fostering a cleaner and more user-friendly experience. The incorporation of this spring-based technology not only ensures a reliable flushing process but also contributes to enhanced restroom hygiene, offering a practical and efficient solution to the persisting problem of unclean public toilet facilities.



HYGIENIFUNNEL: CURBING TOBACCO SPITTING IN PUBLIC SPACES

PROBLEM STATEMENT

Widespread use of paan and tobacco in India has led to a pervasive issue of spitting in public toilets, leaving unsightly and stubborn stains. This habit not only mars the visual appeal but also results in foul odors, creating an unhygienic environment. The presence of tobacco spits poses health risks, promoting infections upon contact. Cleaning these stubborn stains on walls and corners of public toilets demands considerable effort and time from cleaning staff. Tackling this issue necessitates not only a behavioral shift but also effective measures to curb spitting practices, fostering cleaner and healthier public spaces for all.

TEAM MEMBERS

P Rojavaishnavi
Ankith M

Pushpanathan N
Naveen S

SOLUTION

Introducing an innovative solution to combat the pervasive issue of tobacco spitting in public spaces, the proposed funnel-like product offers a hygienic and easily disposable alternative. Crafted from cost-effective materials such as polyester or fabric, the funnel's design ensures that tobacco spits are directed downward due to gravity, collecting in a cloth-type material. This economical material can be readily exchanged if damaged and is strategically positioned near the door for heightened visibility. Adorned with vibrant colors and accompanied by conspicuous signboards, individuals are prompted to use the funnel, actively contributing to a cleaner environment. To further enhance user experience, pleasant fragrances are integrated, effectively mitigating the unpleasant odor associated with tobacco spits and promoting responsible disposal practices for a healthier and more hygienic public space.



PEDALFLUSH: HANDS-FREE HYGIENE FOR PUBLIC RESTROOMS

PROBLEM STATEMENT

In India, each toilet seat serves an average of 75 to 100 persons, resulting in unsanitary conditions exacerbated by accumulated garbage. Unhygienic flushes contribute to user discomfort and potential health issues, including skin irritation, diarrhea, and colds. Ensuring proper flushing is essential for a comfortable, safe, and hygienic sewage disposal system. Neglecting to flush can lead to dire consequences, such as unpleasant odors attracting disease-carrying pests like flies. Maintaining toilet cleanliness is vital not only for user comfort but also to prevent health hazards, ensuring a sanitary environment for all.

TEAM MEMBERS

A Benedict Cyril
Kishan Angya J

P Samiya Manha
Mohammed Sufyaan

SOLUTION

Introducing a hands-free solution to enhance hygiene in public restrooms, a pedal-operated flush system is implemented. When force is applied to the pedal, the lever descends, activating the flush mechanism. This innovative design eliminates the need for direct hand contact with the flush, addressing concerns about hygiene in shared spaces. By using a foot pedal, individuals can comfortably flush without touching potentially contaminated surfaces, reducing the risk of germ transmission. This simple yet effective modification not only promotes a cleaner and more sanitary restroom experience but also aligns with public health guidelines, offering a practical and user-friendly solution for a hands-free flush operation. The foot pedal flush system is an accessible and efficient upgrade, ensuring a heightened level of hygiene in public facilities..





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The Oxford College of Engineering

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ACCESSIBLE PARKING: EFFECTIVE PARKING SYSTEM FOR TWO AND FOUR WHEELERS IN CITIES

PROBLEM STATEMENT

The pervasive issue of parking difficulty poses a significant challenge, adversely impacting urban mobility. Growing urbanization and vehicle ownership contribute to a scarcity of parking spaces, leading to congestion, wasted time, and increased carbon emissions. Inadequate parking infrastructure results in frustrated drivers navigating crowded streets in search of available spaces, creating traffic bottlenecks. Moreover, the lack of real-time information exacerbates the problem, as drivers struggle to find suitable parking. Addressing this challenge requires innovative solutions, leveraging technology and urban planning, to optimize parking availability, enhance user experience, and mitigate the environmental and logistical issues associated with the prevalent parking difficulties in urban environments.

TEAM MEMBERS

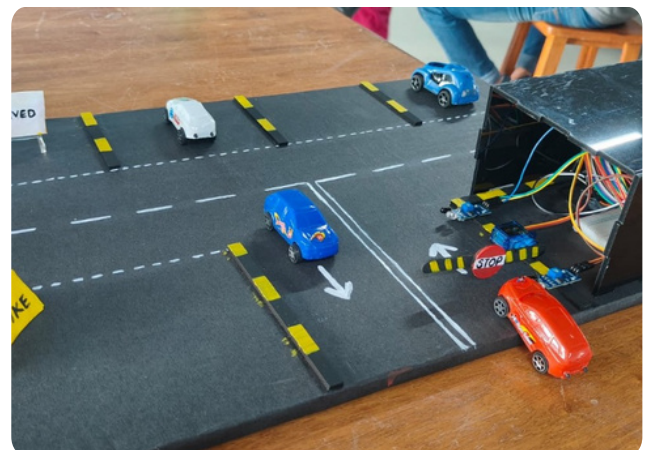


G Deepak
Kanchi Kiran A

Ahalya U
Jayadeep A

SOLUTION

Built the app on figma and also used python for the same which can be hosted as a website using the local host or creating the IP for the same. Also built an Arduino-based parking system that shows the status of the parking slot, indicating how many slots are left or if the lot is full. our app is designed to reserve parking slots and is integrated with almost all parking lots. users can search for their desired locations and book available slots through the app. The website collects necessary information and updates the same.



ACCESSIBLE PARKING: EFFECTIVE PARKING SYSTEM FOR TWO AND FOUR WHEELERS IN CITIES

PROBLEM STATEMENT

Monitoring the temperature of newborns is a critical aspect of neonatal care, ensuring their well-being and early detection of potential health issues. However, the current methodologies for newborn temperature monitoring face challenges in terms of accuracy, accessibility, and continuous surveillance. Traditional temperature measurement methods can be intrusive and disruptive, leading to discomfort for infants. Additionally, the intermittent nature of monitoring may result in delayed detection of temperature fluctuations. This problem statement addresses the need for an innovative and non-intrusive solution that provides continuous, accurate, and accessible monitoring of newborn temperatures, aiming to enhance the overall quality of neonatal care and improve health outcomes for infants.

TEAM MEMBERS

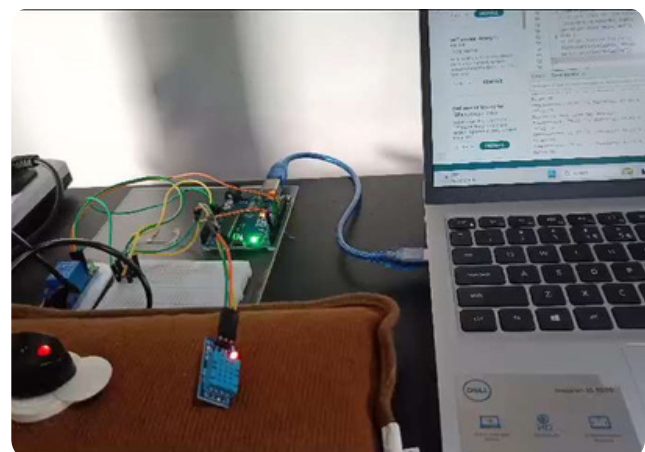


Moulya Shree.S
Balaji R M

Ruchitha K C
Kavya Damodaran

SOLUTION

Introducing a revolutionary gel wrapper design prioritizing newborns' well-being. Our composition combines silica gel, a thickening agent, and a super-saturated sodium acetate solution in water, enhanced with a non-toxic dye. This material is a powerful tool for temperature regulation, ensuring optimal comfort for infants. The gel-infused wrapper, gently placed around the baby, maintains a perfect temperature, offering a safe solution for their well-being. Addressing the critical need for temperature control, our design enhances overall infant comfort reliably. Embrace the future of infant care with our gel wrapper – a testament to thoughtful engineering and a commitment to a secure, cozy environment for the newest members of our community.



EMPOWERING MOBILITY: INNOVATIVE WHEELCHAIR MODIFICATIONS FOR SEAMLESS TRANSFERS

PROBLEM STATEMENT

The problem lies that a wheelchair for easy transfer from a bed seeks to address is the challenge of safely and comfortably moving individuals with mobility limitations between a bed and a wheelchair. In the pursuit of creating a more inclusive and accessible environment for individuals with mobility challenges, innovations in assistive technology have played a pivotal role. One such advancement is the modification of wheelchairs to facilitate easy and efficient transfers from the wheelchair to the bed and vice versa. In summary, the problem of modifying wheelchairs arises due to the need for mobility devices that are tailored to the specific needs, comfort, and safety of individual users. The goal is to ensure that wheelchair users can live with maximum comfort, independence, and mobility.

TEAM MEMBERS

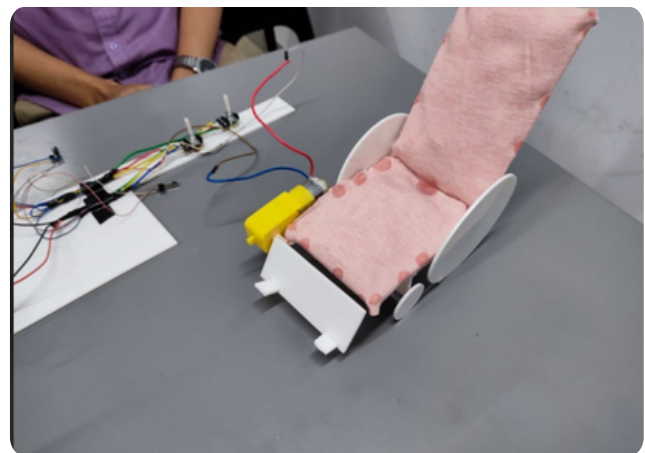
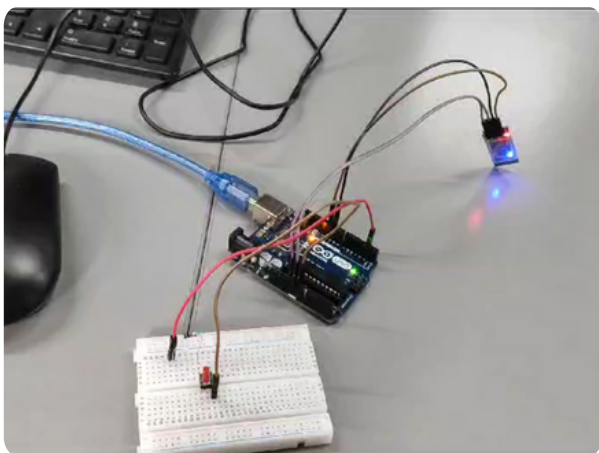


B K Vyasa Varma
Bhoomika R Shankar

B R C Abhishek
Shirish Dobal

SOLUTION

The modification of wheelchairs for seamless transfers between the wheelchair and the bed marks a significant stride in the realm of assistive technology. This evolution represents more than just a technological enhancement; it is a testament to the commitment to inclusivity and the earnest desire to improve the lives of individuals facing mobility challenges. These innovatively modified wheelchairs stand as tangible evidence of the positive impact that thoughtful design and technological integration can have on the daily lives of wheelchair users.



SMARTPARK: ARDUINO-DRIVEN PARKING OPTIMIZATION

PROBLEM STATEMENT

Urban mobility grapples with a critical challenge as parking difficulties persist due to rising urbanization and vehicle ownership, leading to congestion and increased emissions. Inadequate parking infrastructure frustrates drivers, exacerbating traffic bottlenecks. The lack of real-time information compounds the issue, making it challenging for drivers to find suitable parking. Addressing this challenge requires innovative solutions, blending technology and urban planning to optimize parking availability, enhance user experience, and alleviate environmental and logistical issues linked to prevalent parking difficulties in urban environments

TEAM MEMBERS

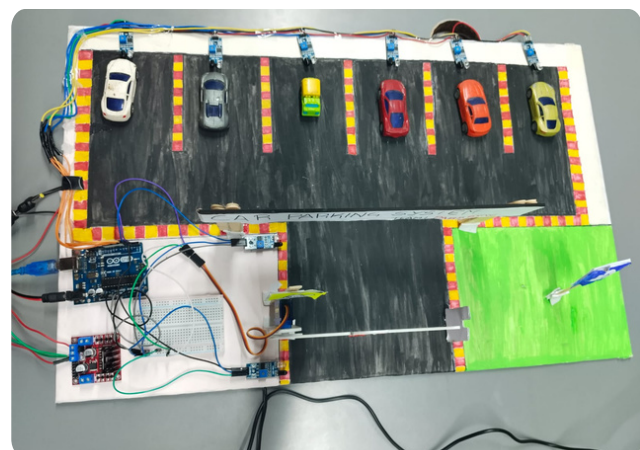


Ramya S
Tushara A Reddy
Shruthi K

Krishna Yadav
Yashashwini SL

SOLUTION

The Smart Parking System project is orchestrated by an Arduino microcontroller, featuring six IR sensors, a servo motor, and a Serial monitor display. The Arduino serves as the central control unit, overseeing the entire system. Two IR sensors are strategically placed at the entry and exit gates to discern vehicle entry and exit from the parking area. Additionally, four IR sensors are deployed to detect the availability of parking slots. This intelligent system operates seamlessly, utilizing sensor data to efficiently manage parking spaces and relay information to users. With real-time monitoring and a servo motor-controlled mechanism, the project optimizes parking utilization, streamlining the parking process and enhancing overall user experience through technological innovation.



TOUCHLESS HYGIENE: AUTOMATIC CLOSE/OPEN FLUSHING SYSTEM FOR SMART RESTROOMS

PROBLEM STATEMENT

Public toilets in India often remain in deplorable conditions, deterring people due to extreme unhygienic circumstances. The aversion is fueled by concerns about touching unsanitary surfaces, leading some individuals to leave without flushing. This behavior, whether due to a reluctance to touch flush handles or a lack of awareness, contributes to the persistence of unsanitary conditions. Leaving urine in the bowl, instead of flushing it away, adds to the overall discomfort and is perceived as unsanitary by many, exacerbating the challenges of maintaining clean and usable public restrooms.

TEAM MEMBERS



Rahul Kumar Behera
Thanushree. M
Navana.RL

Joel G Rajan
Spoorti Hosamani

SOLUTION

The Automatic Close/Open Flushing System operates on pressure detection, offering a seamless and touchless experience. As a user approaches the commode, a connected switch lifts the lids automatically, ensuring a hygienic and hands-free encounter. Upon the user's departure, the system closes the lids, preventing the spread of germs and maintaining cleanliness. Simultaneously, the bowl is flushed, further enhancing hygiene after each use. This automated process not only prioritizes user convenience but also fosters a sanitary restroom environment by eliminating the need for manual lid operation. The system's responsiveness to user presence makes it an efficient and user-friendly solution for maintaining optimal hygiene in both public and private spaces.



HYGIENE INNOVATION: SELF-CLEANING FLOORS FOR EFFICIENT PUBLIC TOILET MAINTENANCE

PROBLEM STATEMENT

To overcome the issue of dirty and unclean public toilet floors, we came up with a solution. Idea of self-cleaning floors through high pressure jet spray of water on the floors of the public toilets can help to clean the public toilet floors evenly and efficiently. Also, this reduces the workload of the cleaning staff and ease the process of public toilet floor cleaning. self-cleaning floors offer numerous advantages and have the potential to revolutionize the way we maintain cleanliness in our homes and public spaces. These innovative flooring solutions incorporate advanced technologies that streamline the cleaning process, reducing the time and effort required for manual clean.

TEAM MEMBERS

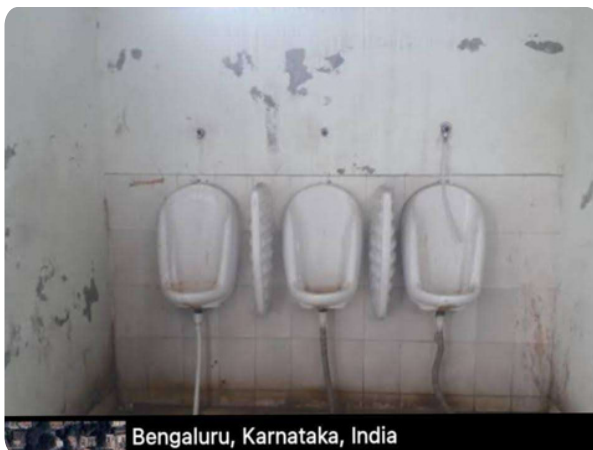


**P Hari om
Sainath**

**Dusumanta Mallick
Seemone Khadri**

SOLUTION

Addressing the persistent issue of dirty and unclean public toilet floors, we propose an innovative solution—self-cleaning floors utilizing a high-pressure jet spray of water. This method ensures even and efficient cleaning, transforming the hygiene maintenance of public restrooms. The implementation of self-cleaning floors not only enhances cleanliness but also alleviates the workload of cleaning staff, simplifying the floor cleaning process. By incorporating advanced technologies, these floors have the potential to revolutionize cleanliness in both homes and public spaces. The automated system reduces the reliance on manual cleaning efforts, offering a time-saving and efficient solution that contributes to a more hygienic environment for users and reduces the burden on maintenance staff.



EASYTRANSFER WHEELCHAIR: STREAMLINED MOBILITY SOLUTION

PROBLEM STATEMENT

A modified wheelchair for easy transfer from a bed addresses the challenge of safely and comfortably moving individuals with mobility limitations between a bed and a wheelchair. Innovations in assistive technology aim to create a more inclusive environment, and wheelchair modifications play a pivotal role. These advancements cater to the specific needs, comfort, and safety of users, ensuring maximum independence and mobility. The goal is to enhance the overall well-being of wheelchair users by providing a seamless and efficient transfer experience, promoting comfort and autonomy in their daily lives.

TEAM MEMBERS

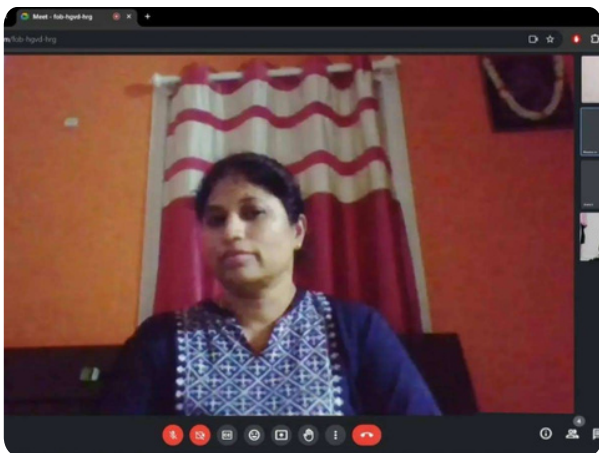


Bhavana M
Ayush Bangera J

Shindu
Sneha S

SOLUTION

Introducing our meticulously crafted modified wheelchair, designed for user convenience and setting a new standard for enhanced mobility. This innovative solution ensures effortless transfers between bed and chair, prioritizing comfort and efficiency. With a commitment to inclusivity and a user-centric design addressing mobility challenges, our wheelchair creates a supportive environment for those seeking comfort and independence. Embrace newfound freedom with confidence, as our thoughtfully designed wheelchair redefines possibilities and brings about a revolutionary shift in mobility, offering a higher level of independence in daily life.



PARKMATE: REDEFINING LUXURY PARKING WITH SEAMLESS CONVENIENCE

PROBLEM STATEMENT

The scarcity of parking spaces poses a significant challenge, creating difficulties in locating available spots. This shortage results in wasted time, increased frustration, and unnecessary fuel consumption for urban residents, daily commuters, business owners, visitors, tourists, event-goers, and employees. The pressing issue impacts a diverse range of individuals, hindering seamless mobility and contributing to an overall inefficiency in urban transportation.

TEAM MEMBERS

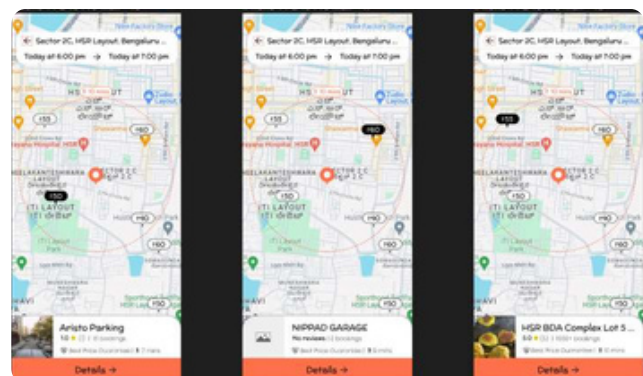


Rajan Singh Sikarwar
Rimsha Shaheen
Rakshitha N

Sharvani SH
Ritik Raj

SOLUTION

Introducing "ParkMate," a groundbreaking parking app that elevates your parking experience to new heights. Focused on luxury, the app showcases premium slots tailored for high-end cars, providing a superior parking option. The streamlined online ticketing system simplifies entry through a post-payment QR code, while the built-in navigation feature ensures a seamless journey to your chosen spot. Contribute to a community-driven parking ecosystem by sharing feedback. ParkMate redefines urban mobility convenience, offering a stress-free and efficient parking process. Earn loyalty points with each park, redeemable for future parking discounts, enhancing user benefits. Immerse yourself in a sophisticated and functionally seamless parking experience with ParkMate.



SMARTBLANKET: REVOLUTIONIZING BABY CARE WITH REAL-TIME TEMPERATURE MONITORING

PROBLEM STATEMENT

Existing baby temperature monitoring lacks a non-intrusive solution, leaving parents with the challenge of continuously tracking their baby's temperature. The absence of a reliable, connected blanket with a built-in temperature sensing system exacerbates the issue. A solution is imperative to provide parents with the peace of mind that comes from seamless and continuous monitoring of their baby's well-being without resorting to intrusive methods. Bridging this gap is essential for creating a safer and more reassuring environment for both parents and infants.

TEAM MEMBERS



Arun S
Kowshaiya C
Vinila M

Mythri N
Shraavya MC

SOLUTION

Introducing an innovative solution – a blanket equipped with an advanced temperature monitoring system designed specifically for infants. The blanket features a strategically placed temperature sensor in the arm region, accurately tracking the baby's temperature. This sensor wirelessly transmits real-time data via a WiFi module to a dedicated parent's phone app, ensuring continuous monitoring. The seamless connectivity provides timely information, offering parents instant updates on their baby's well-being. Combining comfort with cutting-edge technology, this solution offers a non-intrusive means of temperature tracking, fostering a safer and more connected environment. Parents can now have the assurance and convenience of real-time updates, enhancing the overall care.



HYGIENEJET: HIGH-PRESSURE CLEANERS FOR EFFICIENT PUBLIC TOILET MAINTENANCE

PROBLEM STATEMENT

Public toilets suffer from poor hygiene and foul odors due to improper usage and ineffective cleaning tools. The current cleaning methods lack impact, leading to unsanitary conditions that impact user experience and public health. The challenge lies in finding solutions that address both user behavior and the effectiveness of cleaning tools. An urgent need exists for innovative approaches to enhance public toilet cleanliness, ensuring a more pleasant and sanitary environment for users while minimizing the spread of germs and unpleasant odors.

TEAM MEMBERS



Mohammed Shezan
Trinayan V
Dikshitha KS

C Manjunatha
B. Bavishya

SOLUTION

High-Pressurized Cleaners designed to revolutionize public toilet maintenance. Our cleaner, powered electrically, features a high-pressure pump and a hose pipe equipped with a soap dispenser for efficient wall and floor cleaning. Connected to a water tap, the nozzle on the hose pipe releases water at high pressure, ensuring effective removal of dirt and grime. The manual soap dispenser enhances cleaning capabilities, providing a comprehensive solution for sanitation. This user-friendly system not only streamlines the cleaning process but also contributes to improved hygiene in public toilets. Embrace the power of high-pressure cleaning for unparalleled efficiency and convenience, fostering a cleaner and more pleasant experience for users.



WHEELGUARD HEALTH MONITOR: ENHANCING ACCESSIBILITY FOR WHEELCHAIR PATIENTS

PROBLEM STATEMENT

Wheelchair users face challenges in real-time health monitoring due to costly modifications. Routine vital sign checkups, including blood pressure, heart rate, and oxygen levels, require frequent visits, causing financial strain and logistical difficulties. These challenges hinder timely and convenient health monitoring for wheelchair patients. There is an urgent need for affordable, user-friendly solutions that allow wheelchair users to monitor their health in real-time without expensive modifications, promoting accessibility and a comprehensive healthcare experience.

TEAM MEMBERS

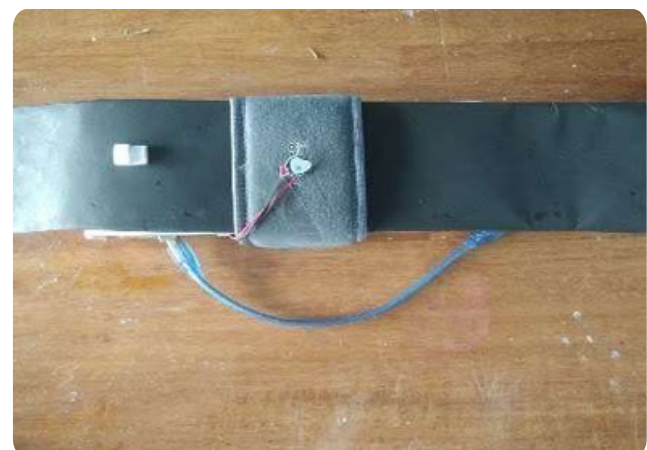


Darshan S
Navyashree BV
Yashasvi Neha

Navneet Kant Dubey
Yallamma

SOLUTION

Introducing an innovative Health Monitoring Device designed for wheelchair patients, providing real-time health tracking without the need for costly wheelchair modifications. Leveraging Internet of Things (IoT) technology, it enables remote monitoring by caregivers from any location, enhancing accessibility to crucial health data. This cost-effective solution not only empowers wheelchair users with comprehensive monitoring but also eliminates the financial strain of adapting wheelchairs for health tracking. The device signifies a breakthrough in accessible healthcare, ensuring timely interventions and contributing to a more inclusive healthcare experience for wheelchair-bound individuals, all while substantially reducing costs and streamlining the monitoring process.



MOBILITYREVIVE: AFFORDABLE BRAKE DISC ATTACHMENT FOR MANUAL WHEELCHAIRS

PROBLEM STATEMENT

Current manual wheelchairs present issues of inadequate braking, transfer difficulties, and high costs, severely restricting users' mobility and safety. Our solution introduces detachable brake discs, providing a cost-effective modification suitable for government procurement. This addresses the existing challenges, significantly improving wheelchair usability and safety. By addressing these critical issues, our innovation aims to enhance the overall functionality and accessibility of manual wheelchairs, ensuring a safer and more efficient mobility solution for users.

TEAM MEMBERS

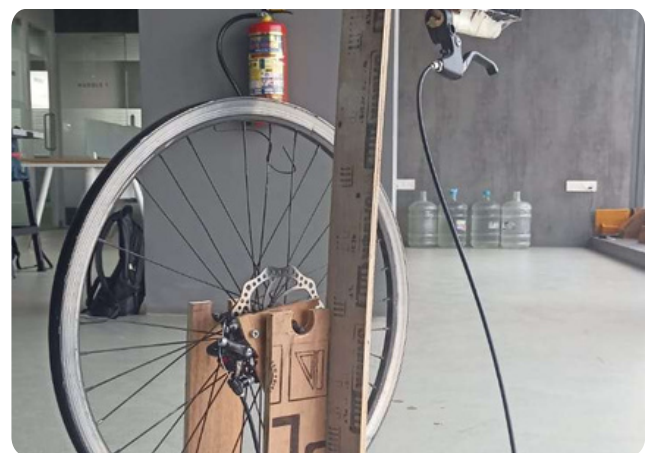


Srijan
Thegu M
S Padmasree

Prashanth S
Mohamad Sulthaan J

SOLUTION

Introducing a cost-effective game-changer—a detachable brake disc system seamlessly integrated into manual wheelchair armrests, designed for government sector procurement. Addressing braking issues, transfer difficulties, and budget constraints, this innovation enhances usability and safety. The detachable brake discs, paired with compatible hubs, offer significant improvements without requiring a complete wheelchair overhaul. This user-centric modification sets a new standard in accessible and budget-friendly medical equipment for government procurement, providing a practical and impactful solution to elevate the functionality of existing manual wheelchairs and promote enhanced independence.



ACCESSIBLEQUEST: EMPOWERING VISUALLY IMPAIRED STUDENTS THROUGH INCLUSIVE GAMING

PROBLEM STATEMENT

Visually impaired students encounter a dearth of inclusive gaming options, restricting their access to recreational and educational opportunities. The lack of accessible games hinders their participation and engagement, posing a barrier to their overall social and cognitive development. The absence of inclusive gaming platforms exacerbates the challenge of providing visually impaired students with equal access to the benefits and enjoyment of gaming, creating a need for innovative solutions that cater to their unique needs and foster a more inclusive gaming environment.

TEAM MEMBERS

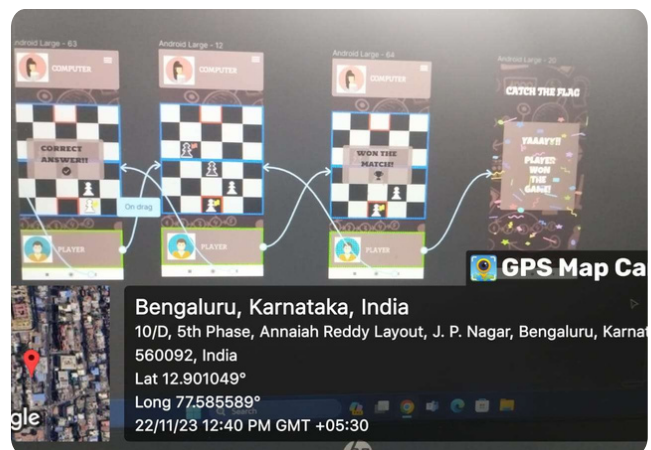


Swetha Raj V
Sirisha M
Sumha Kulsum

Anirudh S
CK Ashiga

SOLUTION

Introducing "Catch the Flag," a thoughtfully crafted mobile game prototype for visually impaired students, promoting inclusivity and education. This unique gaming experience centers on capturing the flag, fostering strategic thinking and mobility skills. Players move in two steps initially and one step thereafter, answering quizzes to progress. Navigating opponents' territory adds excitement, with a diagonal hit sending players back. This innovative game seamlessly blends learning with gameplay, providing an inclusive and engaging platform. Offering an autonomous and enriching experience, "Catch the Flag" breaks barriers, ensuring visually impaired students access a distinctive educational and entertaining environment that encourages independence.



PARKEASE: REVOLUTIONIZING EVENT PARKING WITH REAL-TIME RESERVATIONS

PROBLEM STATEMENT

Current event parking systems face inefficiencies in real-time information, causing stress for event managers and attendees. The absence of a centralized platform for pre-booking and reservations results in disorganization. This scenario urgently demands a solution to streamline parking processes, alleviating stress for organizers and enhancing the overall experience for the public. A comprehensive and centralized system is necessary to provide accurate, real-time parking information, facilitating smooth event logistics and improving the satisfaction of both event managers and attendees.

TEAM MEMBERS

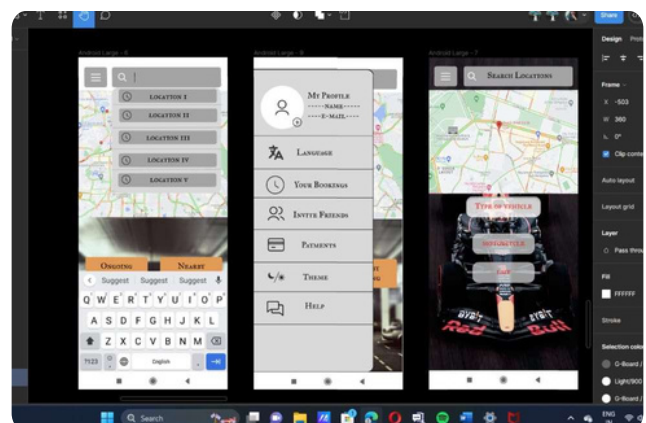


Adithya P Shetty
Suvechha Mandal
Anil Kumar NS

Vyshnavi Sreenivas
Prajwal B

SOLUTION

Presenting a dynamic app/software designed to revolutionize event parking with real-time information, enabling users to pre-book slots and organizers to reserve spaces. This user-friendly solution alleviates stress for both event managers and attendees by providing comprehensive details on available locations and parking spots. The platform offers a win-win scenario, granting a significant commission for both developers and users. By streamlining the parking process, this innovative tool enhances efficiency, minimizes congestion, and ensures a seamless experience for event organizers and the public. It reinforces the importance of convenient and organized parking management in various event scenarios, setting a new standard for accessible and stress-free parking solutions.



DKKR PARKX: SIMPLIFYING TRAFFIC VIOLATION RESOLUTION

PROBLEM STATEMENT

Current systems are inadequate in offering an efficient method for individuals to address and manage traffic violation notices. This deficiency results in inconvenience and a lack of clarity during the resolution process, causing frustration and challenges for those seeking to navigate and resolve their traffic-related issues. The absence of a streamlined and user-friendly system exacerbates the difficulty, emphasizing the urgent need for an improved approach that enhances transparency, accessibility, and ease of resolution in managing traffic violation notices.

TEAM MEMBERS

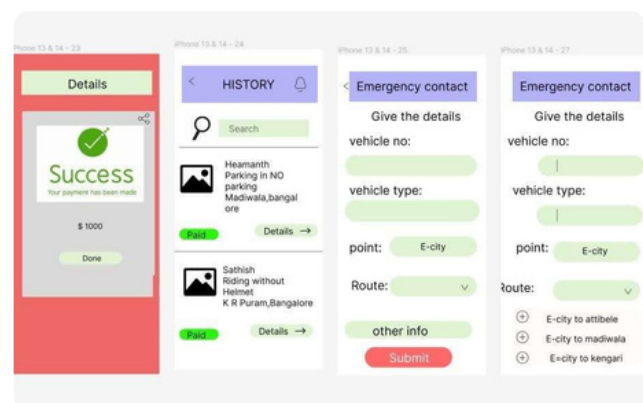


Rahul S
Hemanth Gowda A
Anusha

Dhananjaya K
Bhuvaneshwari

SOLUTION

Introducing DKKR ParkX, a user-friendly platform designed to seamlessly address traffic violations. Users can log in with their Google account, creating or accessing their DKKR ParkX account. The home page facilitates the reporting of violations by entering the vehicle registration number. Violation notices are sent via SMS for prompt notifications, and users can check their status online or make payments in case of accidental deletion or non-receipt. The platform also provides emergency contacts for immediate assistance. This streamlined system empowers users to efficiently manage and resolve traffic violations, promoting accountability and offering a convenient digital solution for overseeing and addressing inadvertent or intentional traffic rule infringements.



INFLAMETER: PIONEERING PORTABLE CRP ANALYSIS FOR NEONATAL HEALTH DETECTION

PROBLEM STATEMENT

Efficient neonatal healthcare is impeded by the absence of a portable and time-efficient solution for measuring C-reactive protein (CRP) levels, crucial for early infection or inflammation detection. The current deficiency in a rapid diagnostic tool hampers timely intervention, creating a challenge in the prompt identification and management of potential health issues in neonates. A pressing need exists for an innovative solution that can address this gap, facilitating swift and accurate CRP level measurements for early detection, thereby enhancing the overall effectiveness of neonatal healthcare interventions.

TEAM MEMBERS



Priya Shashidhar

Deeksha Dinesh Gurav

Vinutha Shree N

GK Maanas

Vibhashree G

SOLUTION

Introducing the Inflameter, a groundbreaking prototype for early infection or inflammation detection in neonates. Utilizing saliva samples, it analyzes C-reactive protein (CRP) levels through monoclonal anti-CRP antibodies and a bioFET transducer for portability. Placing the sample on the electrode strip triggers antibody-CRP binding, generating calibrated electrical signals. Post-use, the ejector button facilitates easy strip detachment for washing, ensuring device efficiency. This biosensor technology offers timely neonatal health insights, providing a user-friendly, portable solution for healthcare professionals. The Inflameter addresses the gap in early detection, revolutionizing neonatal healthcare monitoring with effective infection and inflammation monitoring.



ACCOLADES & ACHIEVEMENTS

54

STUDENTS
PARTICIPATED

18

EVENTS
PARTICIPATED

3

EVENTS
WON



Battle of Lines First Place

ABOUT THE EVENT

The team "ROBORO", participated in the Battle of Line - A line follower robot event which was organised by RV College of Engineering on behalf of their Annual Techfest - "Battle of Line". Out of 29 teams that were present in the event, "ROBORO" stood out in the event by covering the arena in the shortest time and bagging the First place.

TEAM MEMBERS



Darshan M S
1TJ22CS024
Computer
Science.



**Vamshi
Krishna V**
1TJ22CS115
Computer
science.



Lavanya K M
1OX22CS410
Computer
science



JP NAGAR CENTER

Battle of Lines Second Place

ABOUT THE EVENT

The team "ROBOWIZARDS", participated in the Battle of Line - A line follower robot event which was organised by RV College of Engineering on behalf of their Annual Techfest - they stood out in the event by bagging the Second place.

TEAM MEMBERS



Divakar C
10X21CS406
Computer
Science



Chaitanya
10X21CS406
Computer
Science.



Chandana L
10X21CS035
Computer
Science..

OTHER PARTICIPATING MEMBERS

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10X21CS035
CSE

Ragini Guruprasad
10X21CS035
CSE

MANASA
10X21CS406
CSE

Chandana L
10X21CS035
CSE

Kiran Kumar V
10X21CS069
CSE



JP NAGAR CENTER

TORQ Terrain First Place

ABOUT THE EVENT

Team GODLIKE from AMC College of Engineering, took part in TORQ TERRAIN Robo Race event at the BNMIT College of Engineering and won first place, showcasing the team's skills, strategy, and determination in the field of robotics.

TEAM MEMBERS **Ramakoti Reddy | Sohel Mujawar | Adithya Mallannavar**



OTHER TEAM PARTICIPATING MEMBERS

**Sandeep A S | Shankargouda |
Joh Prabhu C**

IEEE Returning Mother Conference

ABOUT THE EVENT

At the IEEE Returning Mother Conference at Northcape University on October 27, a project stood out among 220 entries. After two rounds of presentations, team secured the first position, winning a \$500 prize. The project's success and interactions with dignitaries have opened doors to significant opportunities for the team.

TEAM MEMBERS **Vinu Chandran C | Ashiwini Tirkey | Saeedah Ahemad**



IIT Madras

ABOUT THE EVENT

28 in total students from T John Institute of Technology and The Oxford College of Engineering participated in the "**Shastra**" event organized by IIT Madras. The involvement in the Robo Ocean and Maze Mouse events suggests a diverse set of skills and interests among the participants. Participating in robotics events like this typically involves designing and building autonomous robots to navigate specific challenges. These competitions are not only knowledge broadening but also provide students with practical experience in robotics, programming, and problem-solving.

PARTICIPANTS OF IIT MADRAS

Divakar C
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Computer
Science

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Computer
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ISE

**Shubendu
singh**
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1TJ22IS027
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Yuvaraj K
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ISE

**Avinash V
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