



Report

on

Techmanjari 2024

Under GMIT SSIP Cell

8th to 11th February, 2024

At Gyanmanjari Innovative University

Campus



Gyanmanjari
Innovative University



Gyanmanjari
Innovative University

DON'T MISS IT !

: તારીખ :
8TH FEB. 2024
TO
11TH FEB. 2024

: સમય :
સવારે 9:00
થી
સાંજે 6:00 સુધી

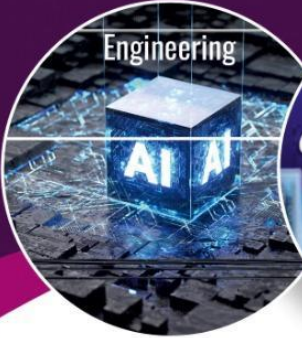
આપણાં શહેર ભાવેલામાં...

આર્ટસ ,કોમર્સ, સાયન્સ અને ટેકનોલોજી કાર્નિવલ

TECHMANJARI 2024



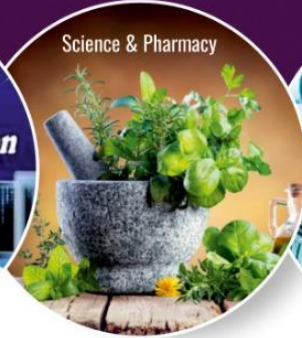
આકર્ષિત પ્રોજેક્ટ્સ



કોમ્પ્યુટર ,આઈ.ટી. BCA અને MCA વિભાગ દ્વારા આર્ટિફિશિયલ ઇન્ટેલીજન્સ (AI), મશીન લર્નિંગ (ML), વેબ ટેકનોલોજી, IoT, મોબાઇલ એપ્લિકેશન, વેબ ડેવલોપમેન્ટ એવા વિવિધ શ્રેણીના ઇનોવેટિવ અને સમાજ ઉપયોગી પ્રોજેક્ટ.



મિકેનિકલ, સિવિલ, ઇલેક્ટ્રિકલ અને કેમિકલ વિભાગ દ્વારા થર્મલ સાયન્સ, ઓટોમેશન ટેકનોલોજી, રોબોટ ટેકનોલોજી, એગ્રીકલ્ચર, મિલ્ટીંગ મટીરીયલ, કોન્ક્રીટ ટેકનોલોજી, વેસ્ટ વોટર એન્જિનિયરિંગ જેવા વિવિધ શ્રેણીના ઇનોવેટિવ અને સમાજ ઉપયોગી પ્રોજેક્ટ.



ફાર્મસી, બાયોટેકનોલોજી, ફૂડ ટેકનોલોજી અને સાયન્સ વિભાગ દ્વારા કુદરતી સ્ત્રોત માથી બનાવેલી રોજિંદા વપરાશની વસ્તુઓ, કેમેસ્ટ્રી અને માઇક્રોબાયોલોજી ક્ષેત્રે નવું સંશોધન તથા નેનો ટેકનોલોજી આધારિત વિવિધ શ્રેણીના ઇનોવેટિવ અને સમાજ ઉપયોગી પ્રોજેક્ટ.



આર્ટસ ,કોમર્સ અને મેનેજમેન્ટ વિભાગ દ્વારા ભાષા અને સાહિત્ય સંવર્ધન, સાઇકોમેટ્રીક ટેસ્ટ, ઝીરોધા, જેવા વિવિધ ઇનોવેટિવ વિચારો અને એક્ટિવિટી વિવિધ માધ્યમો દ્વારા વિશેષ પ્રસ્તુતિ.



નિ:શુલ્ક પ્રવેશ

વિશેષ આકર્ષણો :

- ▶ 100થી વધારે સમાજ ઉપયોગી પ્રોજેક્ટ
- ▶ ફન ઝોન & સેલ્ફી ઝોન
- ▶ યુથ ફેસ્ટ
- ▶ સ્ટાર્ટ-અપ આઇડિયા
- ▶ ભાવનગરના શ્રેષ્ઠ 20+ શાળાકીય પ્રોજેક્ટ
- ▶ રોબો ઝોન
- ▶ કારકિર્દી પસંદગી અંગે સાઇકોમેટ્રિક ટેસ્ટ
- ▶ ફૂડ ઝોન

scan here for more details :



એક આદર્શ વાલી તરીકે આપણા બાળકોમાં સ્ટાર્ટ-અપ, વિજ્ઞાન અને ટેકનોલોજી પ્રત્યેની અભિરુચિ વધારવા માટે અવશ્ય મુલાકાત લેવી જોઈએ..

સ્થળ :- જ્ઞાનમંજરી ઇનોવેટિવ યુનિવર્સિટી, સીદસર રોડ, ભાવનગર.

CONTACT : 9099951160 | 7574949494 | www.techmanjari.gmiu.edu.in

ACKNOWLEDGEMENT

We show gratitude towards our Provost Dr. H. M. Nimbark and Event main coordinators Prashant Viradiya, Dhaval Chanadarana, and Anish Vora who arrange this kind of technical event in our college. We are thankful to Chetan Kamdar for the inauguration of the Event.

We are highly acknowledged by SSIP Cell and Cell's Co-Ordinator (Prof. Anish Vora & Prof. Vedant Gaud) of the GMIT for providing financial support to execute this event under SSIP Norms

We are thankful to Committee Members of Website Monitoring and Updating, Canvassing and Marketing, Project Coordinators, Inauguration and Stage, Food and Water, Parking, Overall Security, Mandap & Electricity, Media Partner + Media Marketing, Designing and Printing, Resource Management, Transportation of school buses, Guest Room Management, Layout Planning & Dome Design, Robo Zone, Help Desk, Registration, Announcement / Background Music/ Certificate Distribution and many more. who devoted their valuable time to the event.

Thanks to Gyanmanjari Vidyapith for allowing & encouraging us to do this kind of event in their school premises.

Special thanks to all the students who showed eagerness & participated in maximum events to make Techmanjari more fruitful and full of Entertainment.

TECH MANJARI COMMITTEE

- **Website monitoring and updating**

1 Pruthviraj Parmar (Main Coordinator)

2 Devdatt Chavda

- **Canvassing and Marketing (outside college)**

1 Sandeep Vala (Main Coordinator)

2 Abhiraj Chavda

3 Yogi Rathod

4. Dharak Andhariya

- **Project Coordinators**

1 Dhaval Chandarana (Main Coordinator)

2 Vruta Amin(Electrical)

3 Vimal Jogi (Civil)

4 Sunil Chavda(IT)

5 Prashansa Choksi &

6 Vipul Bambhaniya (Computer)

7 Dharmendra babariya (Science)

8 Nisha Garg (Chemistry)

9 Mandeep Majmudar (Commerce & Management)

- **Inauguration and Stage**

1 Ravi Sachapara (MainCoordinator)

2 Chetan Baraiya

3 Nisha Garg

4 Mayur Hanani

5 Hema Goswami

6 Pooja maru

- **Parking, Food and Water**

1 Shaktidhar Sharma (main Coordinator)

2 Vijay Dabhi

3 Rohit Patel

4 Rohit Nandva

5 Khanjanbhai

6 Sachin Parmar

7 Foram Gosai

8 Urvi Solanki

9 Nidhi Trivedi

10 Suraiya Pathan

- **Overall Security, Mandap & Electricity**

1 Chatrapalbhai Gohil (Main Coordinator)

2 Arjunbhai Patel

- **Media and Relevant management**

1 Krunal Khiraiya (Main Coordinator)

2 Rashmi Parmar

- **Press Notice & Reports**

1 Hema Goswami (Main Coordinator)

2 Kishor Anjara

3 Divya K Parmar

- **Guest Room Management**

1 Bhavik Kamdar (Main Coordinator)

2 Ashish Gohil

3 Sandip Gohil

4 Gohil Karshan

- **Selfie Zone**

1 Trusha Gajariya (Main Coordinator)

2 Tanvi Bhatt

3 Krishna Mehta

4 Kavita Mistri

5 Priyanka Dholakiya

- **Layout Planning & Dome Design**

1 Vimal Jogi (Main Coordinator)

- **Robo Zone**

1 Vedant Gaud (Main Coordinator)

2 Tanzil Munshi

3 Dhanush Khasiya

4 Hiren Jagani

5 Nisha Rajani

- **Help Desk**

1 Kahan Raval (MainCoordinator)

2 Bhavesh Mehta

3 Ratna Vyas

- **Registration**

1 Mitul Goswami (Main Coordinator)

2 Samuel Patel

3 Chavda Bhumi

4 Chauhan Bhumika

5 Talsaniya Komal

6 Rathod Nilay

7 Dholakia Priyanka

- **Announcement / Back Ground Music/ Certificate Distribution**

1 Chetan Baraiya (Main Coordinator)

2. Ronak Gandhi (Main Coordinator)

2 Nisha Garg

- **Health (First Aid)**

Usha Shinde (Main Coordinator)

- **Decoration / Approach / Sign Board**

1 Niti Gupta (Main Coordinator)

2 Shivani Patel (Main Coordinator)

3.Safiya Loya

4 Neha Jadav

5 Chetan Parmar

6 Radha Dodiya

7 Bhavik Vaghela

8 Urvi Solanki

9 Pooja Maru

10 Reena Desai

11 Niyati Bhatt

12 Divya Parmar

• **Overall Crowd Handling**

1 Viram Parmar (Main Coordinator)

2 Hiren Jagani

3 Sunil Mehta

4 Yuvrajsing Gohil

5 Brijraj Vaghela

6 Nilesh Khodifad

7 Tehseen Kadri

8 Sunil Dabhi

9 Utsav Dave

10 Manoj Tukadiya

11 Pravin Ahir

12 Mehta Milan

• **Youth Festival**

1 Kashyap Dave (Main Coordinator)

2 Chirag Vyas (Main Coordinator)

- **Run time Entertainment (Game Zone) (Technical + non-technical)**

1 Sunil Chavda (Main Coordinator)

2 Pooja Yagnik

3 Pratapsinh Gohil

4 Mitul Kakadiya

5 Hanisha Visani

6 Hina Boricha

7 Shital Boricha

8 Nima Sutariya

9 Jigna Babariya

10 Bhavna Asanani

11 Mansi Parmar

12 Chimnani Ritesh

13 Goswami Hema

GENERAL INFORMATION

Techmanjari 2024: Empowering Innovation under Gujarat's SSIP Policy

Techmanjari, the flagship tech-fest of Gyanmanjari Innovative University, epitomizes the fusion of academia and industry in the realm of innovation. Operating within the ambit of the Startup and Innovation Policy (SSIP) of the Government of Gujarat, Techmanjari serves as a dynamic platform for fostering creativity, entrepreneurship, and technological advancement. In this report, we provide a concise overview of Techmanjari's role in nurturing innovation and driving socio-economic growth in Gujarat.

Students from different departments created Projects to showcase their creativity and innovations in their field. This Event widens the outlook of the students.

The event helps the students conquer their shyness. They talk freely with one another. All Students get an opportunity to mix freely. This helps in creating a proper understanding of the other. This day became more special as it has been organized during vacation time. Techmanjari provides a very happy and cheerful atmosphere and stimulates competitive spirit. The Event has a fool proof system to encourage all students in various Art & Literary forms in each academic year. Perfect time management, impartial Judgement, on the spot arrangements to dispose of appeals etc. makes the art festival unique in all aspects.

Glimpse of Techmanjari

Details of Projects

1. *EquiSafe: Violence Notification system through CCTV Camera*



The Computer Department proudly announces the launch of *EquiSafe*, an innovative system designed to enhance public safety through cutting-edge technology. Developed by the Computer Department's team of experts, *EquiSafe* represents a significant advancement in leveraging machine learning algorithms for real-time threat detection.

EquiSafe utilizes sophisticated machine learning algorithms to analyze live video footage, enabling the detection of potential violent actions or threatening behaviors. By employing deep learning techniques, the system can identify patterns indicative of violence, facilitating timely intervention and response measures. Furthermore, strategically deployed sensor networks gather contextual data, thereby enhancing the system's accuracy across various settings.

"This initiative marks a groundbreaking milestone in our ongoing efforts to enhance public safety," said Sparsh Nimbark (Students) at the Computer Department. "*EquiSafe* embodies our commitment to leveraging advanced technology for the betterment of society."

The proposed system represents a significant leap forward in leveraging technology for public safety. By combining advanced algorithms with real-time monitoring and adaptive learning capabilities, *EquiSafe* provides a proactive and intelligent solution to identify and prevent violent incidents. Ultimately, *EquiSafe* aims to contribute to the creation of safer communities.

2. Self-Balancing Robot "EquiBots" Revolutionizes Robotics, Developed by the Computer Department.



The Computer Department proudly announces the groundbreaking development of EquiBots, a cutting-edge self-balancing robot poised to transform the robotics landscape. EquiBots represent a significant advancement in robotic technology, offering unparalleled stability and versatility.

EquiBots are meticulously crafted two-wheeled robots designed to autonomously maintain balance, thus preventing any risk of toppling over. Leveraging state-of-the-art "closed-loop feedback control" systems, EquiBots utilize real-time data from motion sensors to precisely regulate their motors. This enables them to swiftly and effectively counteract any tilting motion, ensuring continuous stability and uptime.

Developed by the Computer Department's team of skilled engineers and researchers, EquiBots showcase the department's commitment to innovation and excellence in robotics. The project exemplifies the department's dedication to pushing the boundaries of technology and creating solutions with real-world impact.

EquiBots are poised to revolutionize various sectors, including indoor navigation, surveillance, security, entertainment, and education. Their adaptability and robust design make them ideal for a wide range of applications, promising enhanced efficiency and effectiveness in diverse environments.

"We are thrilled to unveil EquiBots, a remarkable achievement in robotics," said Mr Prashant Viradiya, Faculty at the Computer Department. "EquiBots represent the culmination of extensive research and development, and we are confident that they will redefine standards in the field of robotics."

EquiBots are equipped with intelligent control algorithms, adaptive learning capabilities, and sensor fusion technology, setting them apart as pioneers in the realm of self-balancing robotics. With their innovative features and unparalleled performance, EquiBots offer a glimpse into the future of robotics technology.

3. QR-Based Quick Recognition System



In today's era of rapid advancements, the incidence of road accidents is steadily increasing. According to the Ministry of Road Transport and Highways 2022 report, the number of recorded road accidents within a year has surged to 412,432. In such critical situations, drivers involved in accidents may not be in a state to notify their relatives about the incident or provide information about their condition. Furthermore, access to the vehicles of deceased drivers is often protected by passwords. To address this issue, students from the Gyanmanjari Innovative University have developed an IQID Quick Recognition application. This application allows for the generation of a unique QR code for each vehicle, which can be affixed anywhere on the vehicle or linked to its key chain. During emergencies, scanning this QR code with any mobile QR scanner can provide vital information about the driver to their relatives and authorities.

4. Portable Biodiesel System



The biodiesel multi-purpose tractor project organized by the Mechanical Department introduced a tractor that is eco-friendly and can be built by farmers themselves, thereby not imposing any financial burden on them and causing no harm to the environment. Bio-diesel, when used with IC engines, offers numerous environmental and energy-related benefits, especially impactful in the agricultural sector. Bio-fuel tractors perform various tasks such as farming, harvesting, etc.

5. MyMaid: A Maid Solution



The Computer Department has developed the "My Maid Application" to address numerous "Maid" issues prevalent today. Trusted Maid advice has become increasingly crucial. For this purpose, students have categorized and provided maid services through the application from different agencies. This initiative reflects a thoughtful approach tailored to various needs. The application aims to provide trustworthy and convenient maid services directly to people's homes, especially beneficial for those facing challenges accessing online maid services.

6. Choco maringa: Multivitamins Multi Chocolates with attractive Test



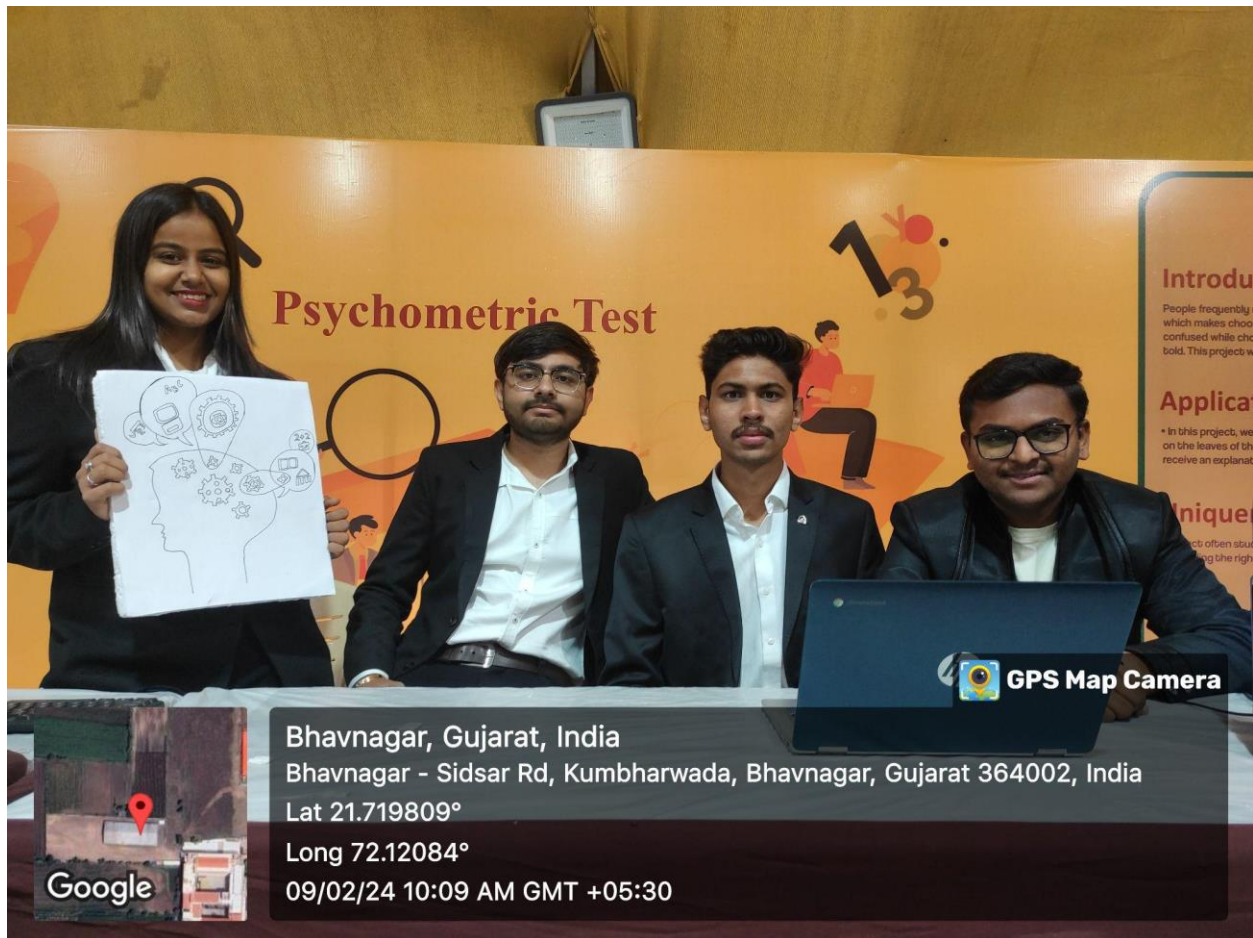
Students from the Department of Science are involved in the production of special multi-vitamin and multi-nutritional chocolates made from the Choco Moringa plant. At present times, deficiencies of vital minerals like calcium and vitamins are increasing, leading to various health issues. To mitigate this, chocolates are being manufactured from the extract of the Choco Moringa plant, which proves beneficial for the body and poses no harm. These chocolates can be consumed by children, youth, and the elderly alike. In today's era, regular chocolates are widely available, but when combined with vitamins and nutrition, the advantages of chocolates become significant. With this notion in mind, students are presenting innovative ideas through chocolate projects derived from the Choco Moringa plant.

7. Smart Farm: IoT Based crop watering and other management



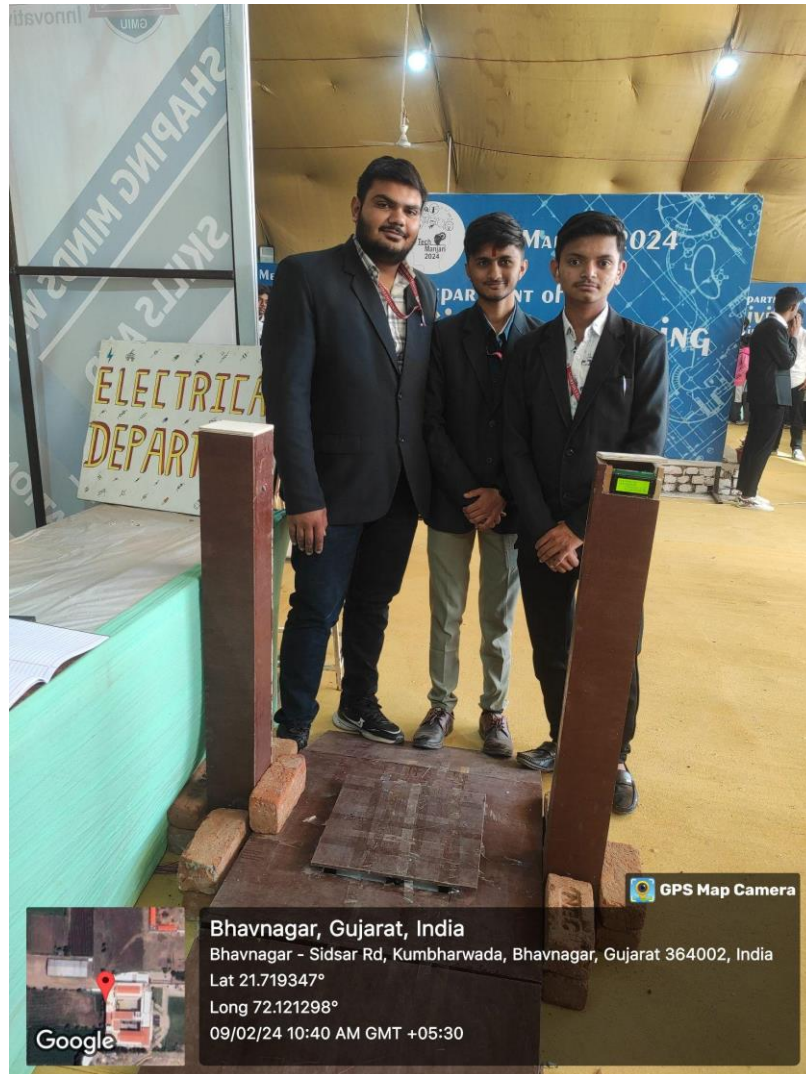
The Department of Information and Technology is currently engaged in the development of an innovative smart farming project. This project addresses prevalent issues faced by farmers in agricultural lands, such as water scarcity and the need for more efficient irrigation methods to combat soil degradation and prevent labor-intensive manual watering, which often leads to physical strain and disturbances in the farmers' daily routines. This project, developed by the IT department, incorporates the use of soil moisture sensors. Through these sensors, the system measures moisture levels in different sections of the soil and dispenses water in appropriate quantities accordingly. The system is automated, thereby reducing the physical exertion required by farmers and providing them with real-time updates on their mobile devices through a dedicated mobile application. Additionally, the mobile application allows for remote control and regulation of the system. Overall, this project aims to minimize agricultural losses caused by inadequate irrigation practices, thereby significantly benefiting farmers.

8. Career Test: A Scientific PsychoMetric Test



The Department of Arts and Management has collaborated with students to develop a test named "Psycho-Metric Test." This test aims to mitigate the anxiety faced by young children and college students regarding their future paths and career choices. Crafted to be completed within a mere five to ten minutes, this test provides insights into individual personalities and preferences. Through this test, individuals can gain clarity on their inclinations and interests. Moreover, it aids students in understanding why certain career paths resonate with their minds and hearts. The test reveals a plethora of unconscious factors driving decision-making processes in students' minds. This initiative, led by the team at GMIU, marks a significant step toward the holistic development of students.

9. Visitor Energy: A Visitor counter with Energy generation



The students of the Electrical Department have initiated a project to automate the counting of visitors. The key innovation in this project lies in the generation of electricity, employing a Piezo-based sensor. This sensor harnesses pressure to generate electricity, storing it in batteries. Additionally, it counts the number of visitors held and displays the count on a screen. Moreover, it indicates the battery's charge level on the same display. For counting visitors, an LDR sensor has been utilized, which detects light emitted by a laser. When the light falls on the LDR, the Visitor count is registered.

10. Digital Plumb bobs: A accurate perpendicular tool for masonry work



The students of the Civil Department have embarked on a project to develop Digital plumb bobs. The primary rationale behind this project is to facilitate the assessment of whether the floor and walls are perfectly vertical or not, with a deviation of 90 degrees. Currently, plumbers rely on string and gravity to provide indications, but for a more modern approach, students from the Gyanmanjari Innovative University have innovated Digital plumb bobs. This project utilizes an LDR sensor, which, when a laser is directed towards it, emits light flashes. These flashes help in determining if the floor and walls are precisely perpendicular.

11. Fruit Harvester: Harvest fruits on height



The Mechanical Department has developed a fruit harvester machine designed for agricultural purposes. This machine aids in harvesting fruits from heights ranging between 25-30 feet, thereby facilitating the prevention of fruit wastage and ensuring the safety of farmers who climb up for harvesting, thus making the process safer. Its lightweight nature makes it easy to use and also saves costs. Farmers can easily transport it from one location to another. This machine allows for the easy harvesting of fruits such as mangoes, coconuts, Apple and others.

12. Medicinal Butter Ayurvedic Cream



The Pharmacy Department has developed a medicinal butter, Ayurvedic cream, intended for various skin ailments such as acne, pigmentation, eczema, and scarred skin. This medicinal butter is formulated using pure cow ghee and is processed approximately 10,000 times with the addition of water in copper vessels. It is suitable for use in a wide range of skin conditions, offering numerous benefits.

Furthermore, another project, Follectone and Follectone X, medicated ointments, has been created by students of the Pharmacy College. These ointments serve as an excellent and effective remedy for treating skin conditions, especially those involving silver sulfadiazine for wound care. The medicated ointments developed by the students prove to be beneficial for patients suffering from both Type 2 diabetes with low sugar levels and those with elevated sugar levels. These ointments are available in four different flavors

Conclusion

Gyanmanjari Innovative University had organized under SSIP Policy, a carnival of various streams such as Arts, Commerce, Science and engineering called Techmanjari. The aim of Techmanjari was to transform young minds into skilled and confident youth, and to achieve this, annual Techmanjari Carnival is organized. The participants are provided a platform to showcase their various talents. Techmanjari, over the years has matured to be acknowledged as one of the biggest confluence of students and academicians in the region.

In short, Techmanjari shows how teamwork and new ideas can make big changes. Working with Gujarat's SSIP Policy, it helps make technology better and supports people starting new businesses. Looking ahead, Techmanjari will keep inspiring and helping people to come up with fresh ideas, making life better for everyone in Gujarat and beyond. As per SSIP Policy total of 1000+ students were sensitized via various projects and competitions. A total of 100+ Projects were received can lead to PoCs and IP.

Embracing the ethos of innovation, Gyanmanjari Innovative University recently showcased a spectrum of groundbreaking projects poised to revolutionize everyday life. From addressing pressing issues like road safety and medical accessibility to delving into the wonders of space exploration, the university's diverse departments unveiled an array of tech-driven solutions designed to uplift communities and enhance human experiences. With a focus on interdisciplinary collaboration and real-world impact, these projects reflect the ingenuity and forward-thinking spirit of the students and faculty. The exhibition commenced from 8th february and lasted until the 11th. Almost 3500+ visitors, 100+ industrialists have visited innovative projects. It has been the biggest success of Gyanmanjari Innovative University.