



## BIT - INNOVATION AND STARTUP

THE LATEST NEWS | VIEWS & ANNOUNCEMENTS - March 2024

### BIT - STARTUP QUARTERLY NEWS BULLETIN

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# ISSUE - 9


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# FACULTY & STUDENTS STARTUP

# BANNARI AMMAN AGRI SERVICE CENTER

**Incharge: Dr. V. Chelladurai  
Mr. S. Murugakani**

**No. of Products Completed** 02

**No. of Ongoing Products** 02

Contact : [chelladurai@bitsathy.ac.in](mailto:chelladurai@bitsathy.ac.in) | 9944400589

## Objective of the Firm:

- To provide fresh and organic vegetables and fruits to the BIT Community.
- To incorporate advanced technologies within persisting agricultural practices for improving
- Production quality and efficiency of farming products.
- To provide an Agriculture Machinery hiring center to solve labor shortage issues.
- To develop small scale machinery as per the demand of farmers.

## Cassava Harvester

Introducing the Cassava Harvest Pro, a game-changing solution for cassava harvesting in Tamil Nadu. This innovative manual harvester is equipped with a digger and pick-and-pull mechanism, making it easier and more efficient to extract cassava tubers from the soil. With reduced physical strain and increased field capacity, the Cassava Harvest Pro promises to revolutionize cassava cultivation, offering farmers a more productive and sustainable approach to harvesting this vital crop.



## Autonomous Paddy Transplanter

In the realm of paddy cultivation, transplanting seedlings from nurseries to fields is a critical step, pivotal for achieving optimal growth and yield. Thanks to agricultural advancements, paddy transplanters have emerged as game-changers, significantly reducing manual labor and expediting the process. These specialized machines automate the transplantation of young rice seedlings, minimizing damage and ensuring efficient placement in flooded rice fields. Recently, a prototype of an autonomous paddy transplanter has been developed, promising even greater efficiency. Equipped with sophisticated sensors and controllers, this innovative technology is undergoing rigorous evaluation to assess its field capacity and effectiveness. Once proven successful, it could revolutionize paddy cultivation, offering farmers efficient solutions to boost productivity while minimizing labor-intensive tasks.



## Our Future Plans

- Development of Multicrop transplanter
- Development of integrated solar light trap
- Development of vermicompost - Earthworm separator

**Incharge: Mr.Sathish Kumar.S**

**No. of Products Completed** 01

**No. of Ongoing Products** 02

**No. of Products Sold** 01

Contact : [sathishkumars@bitsathy.ac.in](mailto:sathishkumars@bitsathy.ac.in) | 9942130500

## Objective of the Firm:

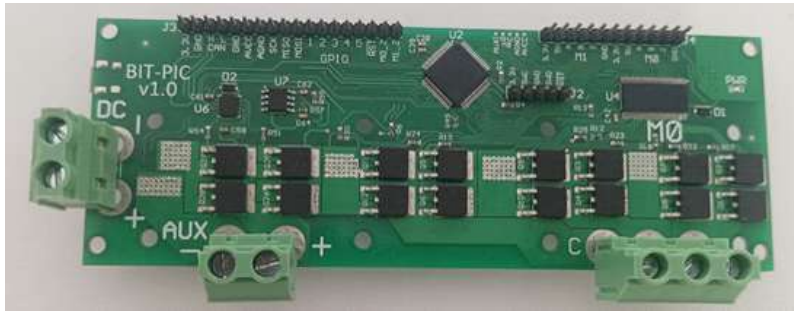
- To develop future technology in e-Mobility and all accessories required for e-Mobility on our campus.
- And to empower Electrical and Electronics Engineering students with technical skills.

## MARS E-bike with Customized Battery Pack

- Introducing our customized E-bike, engineered with an innovative battery pack design to extend its range and maximize efficiency. Unlike conventional models, our E-bike features a specially designed battery pack that utilizes the space under the footrest, optimizing the bike's weight distribution while increasing its kilometer range. This unique design not only enhances the bike's performance but also provides a seamless riding experience, making it ideal for urban commuters and eco-conscious travelers. Say goodbye to range anxiety and hello to endless possibilities with our customized E-bike.



## BLDC Motor Driver V1



We've pioneered a sophisticated BLDC driver tailored to power an array of BLDC motor-driven home appliances, from ceiling fans to wet grinders and mixer grinders. This innovative driver harnesses cutting-edge technology to ensure seamless operation and enhanced efficiency across various household devices. Whether you're aiming for whisper-quiet fan performance or precision grinding capabilities, our BLDC driver promises to elevate your appliance experience with unparalleled reliability and performance.

## Our Future Plans

- Revolutionizing motor technology with PCB-integrated BLDC designs for enhanced efficiency, compactness, and adaptability. Our approach incorporates advanced PCB techniques, efficient power management, smart sensing, scalability, streamlined manufacturing, and environmental sustainability."

**Incharge: Dr.Rajasekar.L**

**No. of Products Completed** 01

**No. of Ongoing Products** 01

**No. of Products Sold** 01

Contact : rajasekarl@bitsathy.ac.in | 9600766788

## Objective of the Firm:

To offer world-class design services to numerous application areas, such as Embedded Systems, IoT, Embedded Vision and AI for the end-to-end development of electronic products.

## Dental Kit

Introducing our innovative Smart Oral Health Monitor, a cutting-edge embedded device designed to revolutionize at-home oral care. This advanced product is equipped with state-of-the-art features to empower individuals in maintaining optimal oral hygiene effortlessly.

## Key Features

- Wireless Convenience:** Our Smart Oral Health Monitor is powered by long-lasting batteries, ensuring hassle-free usage without the limitations of cords or nearby power outlets.
- Seamless Connectivity:** With IoT connectivity, the device effortlessly syncs with your smartphone via Bluetooth or Wi-Fi, facilitating seamless data transfer and analysis.
- Precision Cavity Detection:** Utilizing advanced sensors and high-resolution imaging technology, our device provides accurate and detailed analysis of your dental health, including early detection of cavities and other oral concerns.
- AI-Powered Insights:** Leveraging the power of artificial intelligence, the device's integrated AI model interprets the collected data to offer personalized insights and recommendations tailored to your specific oral care needs.
- Intuitive Mobile App:** The accompanying user-friendly app presents comprehensive insights into your oral health in a clear and understandable manner, empowering you to take proactive measures for improved dental wellness.

## Benefits:

- Early Intervention:** Detect potential dental issues early, enabling timely intervention and preventing the escalation of oral health problems.
- Enhanced Oral Hygiene:** Receive personalized feedback on your brushing and flossing techniques, fostering better oral hygiene habits and promoting long-term dental wellness.



3. **Virtual Consultations:** Seamlessly connect with dental professionals for remote consultations based on the analysis results, ensuring prompt guidance and expert advice from the comfort of your home.
4. **Convenience and Accessibility:** Enjoy the convenience of monitoring your oral health at home, reducing the frequency of dental appointments while ensuring continuous care and maintenance.

Embrace the future of oral care with our Smart Oral Health Monitor – your trusted companion for a healthier, happier smile.



## Air Cooler Life Cycle Saver

Introducing the AC Lifespan ProLong, a revolutionary solution designed to maximize the lifespan of your air conditioner while optimizing energy usage. This innovative embedded system intelligently manages AC on/off cycles to enhance efficiency and reduce wear and tear on your cooling unit.

### Key Features:

1. **Adaptive Timer Control:** The AC Lifespan ProLong features an embedded timer that offers precise control over AC runtime. Users can customize on/off cycles for specific durations, ensuring optimal cooling without excessive strain on the system.
2. **Lifespan Extension Technology:** By strategically regulating AC operation and minimizing compressor startup stress, this controller effectively extends the lifespan of your air conditioner, saving you money on potential replacement costs.
3. **Energy-Efficient Operation:** With optimized cooling cycles, the AC Lifespan ProLong helps reduce energy consumption, leading to significant savings on electricity bills while promoting environmental sustainability.
4. **Intuitive User Interface:** Whether through a user-friendly smartphone app or simple physical buttons, the interface allows users to easily set their preferred cycle duration, providing convenience and flexibility in managing AC operation.

### Benefits:

1. **Enhanced AC Longevity:** Enjoy prolonged use of your air conditioner by minimizing wear and tear, ultimately saving you money on maintenance and replacement expenses.
2. **Cost-Effective Cooling:** Experience lower energy bills thanks to the efficient management of AC cycles, ensuring cooling comfort without unnecessary power consumption.

1. **Quieter Operation:** By reducing the frequency of compressor start-ups, the AC Lifespan ProLong promotes quieter AC operation, enhancing overall comfort in your living space.

2. **User-Controlled Comfort:** Take control of your indoor environment with the ability to tailor AC operation according to your preferences, ensuring a comfortable and inviting atmosphere year-round.

Experience the future of energy-efficient cooling with the AC Lifespan ProLong – your reliable partner in maximizing AC performance while minimizing costs and environmental impact.



## Our Future Plans

The future of embedded products is brimming with exciting possibilities.

- **Increased Intelligence and Connectivity:** Embedded systems will be even more intelligent, leveraging advancements in AI and machine learning to perform complex tasks at the edge of the network. They will seamlessly connect to the internet of things (IoT), enabling data exchange and remote control for improved efficiency and functionality.

- **Focus on Security and Miniaturization:** Security will be paramount as embedded products become more interconnected. Manufacturers will prioritize robust security features to safeguard against cyberattacks. Miniaturization will continue, with even smaller and more powerful processors being developed for space-constrained applications.

- **Specialization and Integration:** Embedded products will become increasingly specialized to cater to specific industry needs. There will be a greater focus on integration, with multiple functionalities consolidated into a single device for simplified design and operation.

# FAB SOLUTION

**Incharge: Mr.Karthick.K.N**

**No. of Products Completed** 01

**No. of Ongoing Products** 01

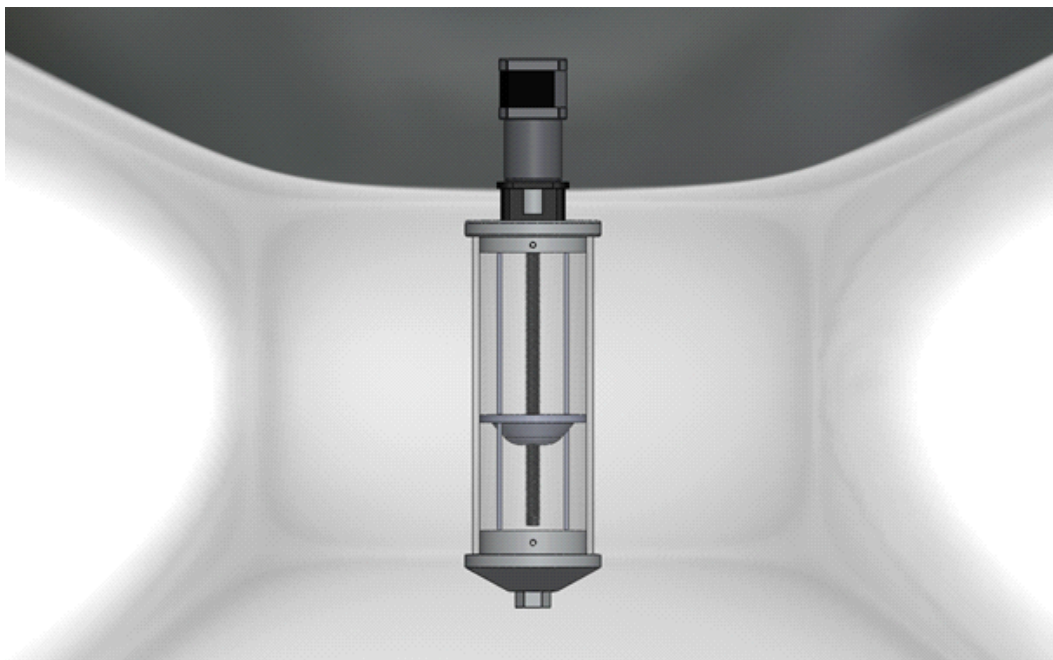
**No. of Products Sold** 01

Contact : [karthickkn@bitsathy.ac.in](mailto:karthickkn@bitsathy.ac.in) | 9952272735

## Objective of the Firm:

To be the top-notch provider of innovative and high-quality products and technical accessories designed by our seasoned professional members using state-of-the-art products and manufacturing processes.

## Intelligence Clay Extruder



Introducing the Intelligence Clay Extruder, a groundbreaking extruder revolutionizing ceramic 3D printing. Unlike conventional models, Clay Extruder integrates advanced technology for automatic pressure adjustment and temperature monitoring, ensuring smooth, precise prints without clogs. Whether you're a seasoned artist or a newcomer, Clay Extruder empowers you to unleash your creativity and bring intricate ceramic designs to life with unparalleled ease and precision. Join the future of ceramic artistry with Clay Extruder – where innovation meets craftsmanship.

## Monowheel Bike

Picture a futuristic monowheel, distinguished by its single thick wheel. Unlike traditional scooters, riders stand on platforms positioned beside the wheel rather than atop it. Typically, electrically powered, these scooters house a motor within the wheel itself. To navigate and maintain balance, users lean forward to accelerate, backward to decelerate, and tilt side-to-side for steering. While mastering their operation may pose a challenge initially, monowheel scooters promise a novel and futuristic riding experience on a single wheel.



## Our Future Plans

Enhanced Attachable Electric Motor Kit for Wheelchairs Manual wheelchairs provide mobility for individuals with lower-body limitations. However, propelling a wheelchair manually can be physically demanding, limiting user range and independence. This product addresses this challenge by introducing an attachable electric motor kit.

# FIRST CHOICE AIR CONDITIONING SOLUTIONS

**Incharge: Dr. Prakash K B**

No. of Products Completed **02**

No. of Ongoing Products **02**

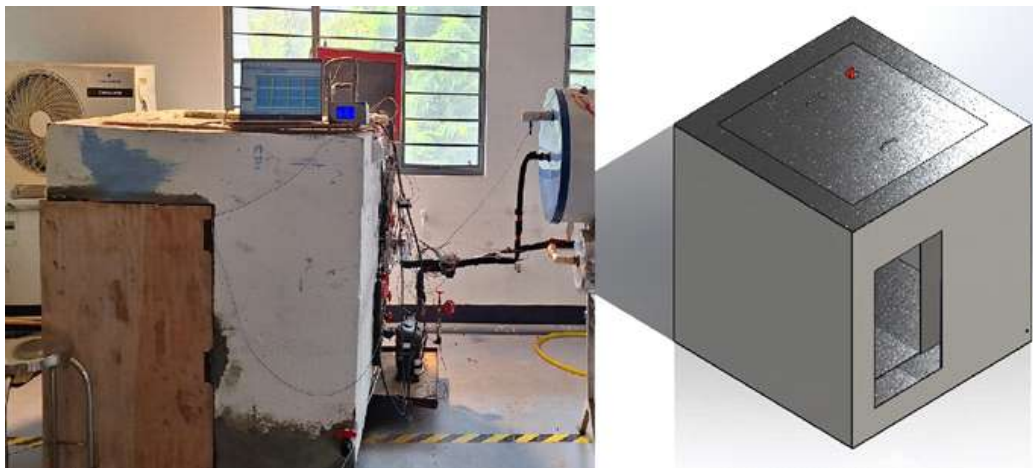
No. of Products Sold **01**

Contact : [prakashkb@bitsathy.ac.in](mailto:prakashkb@bitsathy.ac.in) | 9786079032

## Objective of the Firm:

- To develop diverse designs and solutions for real-time problems in our domain and to address social problems.
- To provide high-quality service and maintenance support at a low cost in the area of renewable energy and HVAC.
- To generate revenue by doing consultancy work for industries/ commercial sectors.

## Radiant Building Heat pump



A new air conditioning system with a more compact and effective compressor is shown in this study. Radiant cooling is achieved by pumping chilled water through building walls via a reservoir that serves as a heat exchanger. The air is further cooled by additional evaporators positioned on walls. Notably, hot water can be produced by capturing waste heat from the system. Phase Change Material (PCM) is another method that uses heat storage. As PCM melts, heat is absorbed, negating the need for continuous cooling. With its off-peak operation, this system can save money and claims lower energy use. But for best results and financial viability, careful planning, routine upkeep, and cost analysis are essential.

## Geothermal Heat Pump System



Geothermal heat pumps present a novel solution for climate control that uses less energy. They draw their comfort from the steady warmth of the soil instead of the erratic air temperatures outside. This is how it works: a system of subterranean pipes serves as a heat exchanger. The system takes heat from the earth and feeds it into the building's heating system during the colder months. Its function is to reverse the flow during the summer, taking heat from the building and returning it to the cooler ground. This approach has several noteworthy benefits:

**Lower energy use:** Making use of the earth's natural temperature reduces the need for traditional heating and cooling, which results in significant energy savings. **Comfort throughout the year:** A single system can be used for both cooling and heating.

**Environmental benefits:** Geothermal heat pumps help to create a cleaner environment by reducing reliance on fossil fuels. However, in comparison to typical systems, the initial expenditures of installation may be greater.

## Our Future Plans

First Choice: Shaping Tomorrow's Home Comfort Landscape. Beyond AC and Refrigerator Expertise, We're Leading the Charge into Renewable Energy. Stay Tuned for Our Expansion into Solar Panel Installation and Maintenance Services. Join Us in Redefining Home Comfort with Sustainable Solutions. Trust First Choice for a Greener, More Efficient Future.

# I FOODS

**Incharge: Mr. Gowrishankar L  
Dr. Arunasree TNA**

**No. of Products Completed** 02

**No. of Ongoing Products** 01

**No. of Products Sold** 01

Contact : [gowrishankar@bitsathy.ac.in](mailto:gowrishankar@bitsathy.ac.in) | 9487419225

## Objective of the Firm:

- To develop healthy food with fortified nutraceuticals.
- To enhance the quality of functional food using the concept of waste to wealth.
- To create a customer base through WhatsApp and other social networking sites.
- To develop app-based order and bill maintenance

## Development and Evaluation of Muffins Infused with Banana Blossom

The flower has been used to cure a variety of conditions, including ulcers, dysentery, bronchitis, menstrual bleeding issues, breastfeeding difficulties, diabetes, weight reduction, and gastrointestinal health. Banana blossoms are rich in antioxidants, minerals, and a tiny quantity of protein, among other nutrients. They provide a balance of soluble and insoluble fiber and are low in fat and calories. In your stomach, soluble fiber turns into a gel-like substance by dissolving in water. It might assist in lowering blood sugar and cholesterol.



## Development of Cookies from Cassava Based Composite Flour

The product's goal is to create gluten-free cookies that individuals with gluten allergies can consume. Chickpeas and oats are added to the cookies to enhance their protein and nutritional fiber content, while the copious starch found in cassava replaces the gluten found in regular cookies. Sugarcane and sugar beets are the only crop plants that yield more carbohydrates per cultivated area than the cassava plant. A member of the Fabaceae family, the chickpea (*Cicer arietinum*) is an annual legume. They are a nutrient-dense mainstay of many diet programs since they are an excellent source of fiber, protein, carbohydrates, B vitamins, and certain minerals. Oats have a nutritional makeup that is well-balanced. It is high in minerals, nutrients, phytochemicals, and oat lipids, especially unsaturated fat. A composite flour is a blend of flours made from starchy tubers like cassava, yam, and potatoes, as well as flours and cereals high in protein, either with or without wheat flour, and designed



to meet certain nutritional requirements and functional needs. The majority of this article is composed of composite flour made from oats, chickpeas, and cassava. These elements are combined to create composite flour, which is then formed into dough, molded, and cooked for 10 to 15 minutes at 180 degrees Celsius in the oven. The cookies made are then cooled and packed.

## Our Future Plans

In the near future, our company is excited to venture into the realm of food production, focusing specifically on millet-based products. With their exceptional nutritional benefits, millets offer a promising avenue to cater to the health-conscious consumer market. Our goal is to harness the vast potential of millets to create a diverse range of nutritious and delicious food offerings.



**Incharge: Mr. Dhinesh S K  
Mr. M Raghunath  
Mr. M Rajendren**

**No. of Products Completed** 02

**No. of Ongoing Products** 03

**No. of Products Sold** 01

Contact : [dhineshsk@bitsathy.ac.in](mailto:dhineshsk@bitsathy.ac.in) | 9715367724

## Objective of the Firm:

- To design and fabricate a low-cost CNC based machines to match the needs of the customer.
- To develop next-generation machines that would otherwise be impossible/impractical to manufacture, including the creation and incubation of new applications for additive manufacturing and attendant first-to-market advantages.

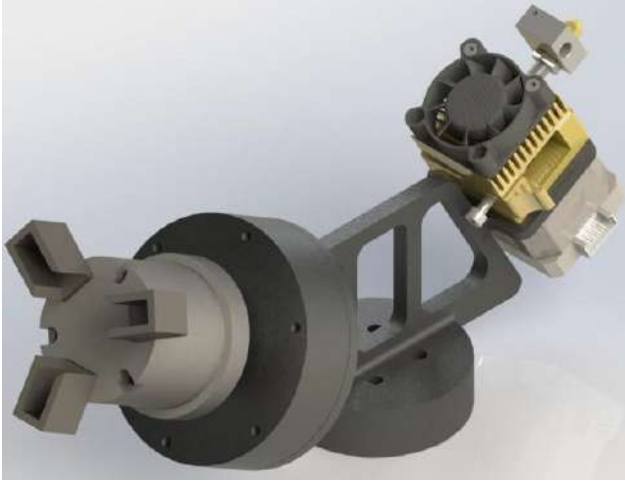
## Electric Barrow Vehicle

For use in urban settings, the Electric Barrow Vehicle is a lightweight, environmentally responsible mode of transportation. It provides effective and sustainable mobility for a range of jobs, including cargo delivery, gardening, and leisure activities, thanks to its elegant, lightweight frame and electric motor. Its ergonomic design and simple controls make it easy to use for people of all ages. Because it has a rechargeable battery, it has enough range for daily use and produces no emissions, which helps to maintain cleaner air quality and a smaller carbon imprint. With its creative and adaptable design, the Electric Barrow Vehicle revolutionizes urban mobility by fusing environmental responsibility with practicality.



## 3d Printed Dual-Functional Gripper

A major difficulty that has emerged with the growing use of robotic arms in additive manufacturing is the requirement for frequent tool changes between filament extrusion and material handling. Workflow is disturbed, and overall productivity is decreased. This problem is addressed by the novel dual-function end effector that is showcased here, which combines both functions into a single 3D printed element. Significant efficiency gains result from this design, which does away with the requirement for tool changes. During the printing process, a 3-jaw gripper makes sure that objects of



different sizes and shapes are securely grasped, allowing for accurate material handling. The 3D printing extruder is integrated seamlessly into the gripper design. Layer by layer, the required 3D item is painstakingly constructed thanks to the carefully selected filament feed system and nozzle features that ensure a smooth and controlled filament flow. The dual-function end effector has major economic advantages in addition to efficiency. Because the gripper and extruder are made of 3D printed parts, it is much less expensive than conventional multi-tool systems. This lowers the cost of the initial investment and gets rid of the need to manage and keep track of multiple different tools. Moreover, this design grants

robotic arms a new degree of versatility. The arm's grasping and extrusion capabilities allow it to switch between manipulating objects and doing 3D printing activities with ease. This makes it excellent for situations where material handling and additive manufacturing are critical, as it offers up a wider range of applications. Nonetheless, for a dual-purpose end effector to function, careful design considerations are necessary. Robust gripping force and small size appropriate for the robotic arm's payload capacity must be balanced in the gripper mechanism. Choosing the proper filament material is essential; it needs to be strong enough to resist grasping forces and able to survive the heat produced by the printer. Furthermore, it is critical to keep the design lightweight for the best possible performance and mobility of the robotic arm. The smooth actuation and control of this design are critical to its success. Additional sections of the document can go into greater detail about the particular actuation techniques used for the gripper (servos, linkages, etc.) and how they work in tandem with the extruder's functionality. It is essential to describe the integration procedure with the robotic arm's control system to guarantee efficient communication and coordinated grasping and extrusion operations. Ultimately, the key to a successful 3D printing experience with this cutting-edge end effector is to implement calibration methods that guarantee exact alignment and optimal performance of both the gripper and extruder. The dual-purpose end effector is a major step toward simplifying robotic 3D printing. Through the integration of efficacy, affordability, and adaptability, it opens up new avenues for automated additive manufacturing. This cutting-edge instrument has the power to completely transform robotic 3D printing processes when used properly and with careful design considerations.

## Our Future Plans

Our firm is dedicated to advancing 3D printing technology, focusing on speed, precision, and scalability. We invest in R&D to explore new materials and processes, expanding applications across industries. Recognizing the importance of drones, we enhance manufacturing for improved endurance and autonomy. Inspired by nature, we innovate biomimetic drone designs. Our research extends to autonomous navigation, human-robot interaction, and machine learning for intelligent and adaptable robots.

# SKY VIEW

**Incharge: Mr. D. Lakshmanan**

**No. of Products Completed** 01

**No. of Ongoing Products** 01

**No. of Products Sold** 01

Contact : [lakshmanand@bitsathy.ac.in](mailto:lakshmanand@bitsathy.ac.in) | 90474 64901

## Objective of the Firm:

- The main aim of Sky View is to develop quality drone parts and provide expert drone services to meet customer requirements. We build drones for applications like Agricultural Drones, Pesticide Spraying Drones, Crop Monitoring Drones, Surveillance Drones, Drones Camera, and Photography Drones. As a service provider, the company offers solutions in Drone manufacturing, Aerial Photography, Surveillance Drone, and Digital Photography services as per the needs. We also aim to provide intelligent solutions to the industry by promoting the usage of drones.

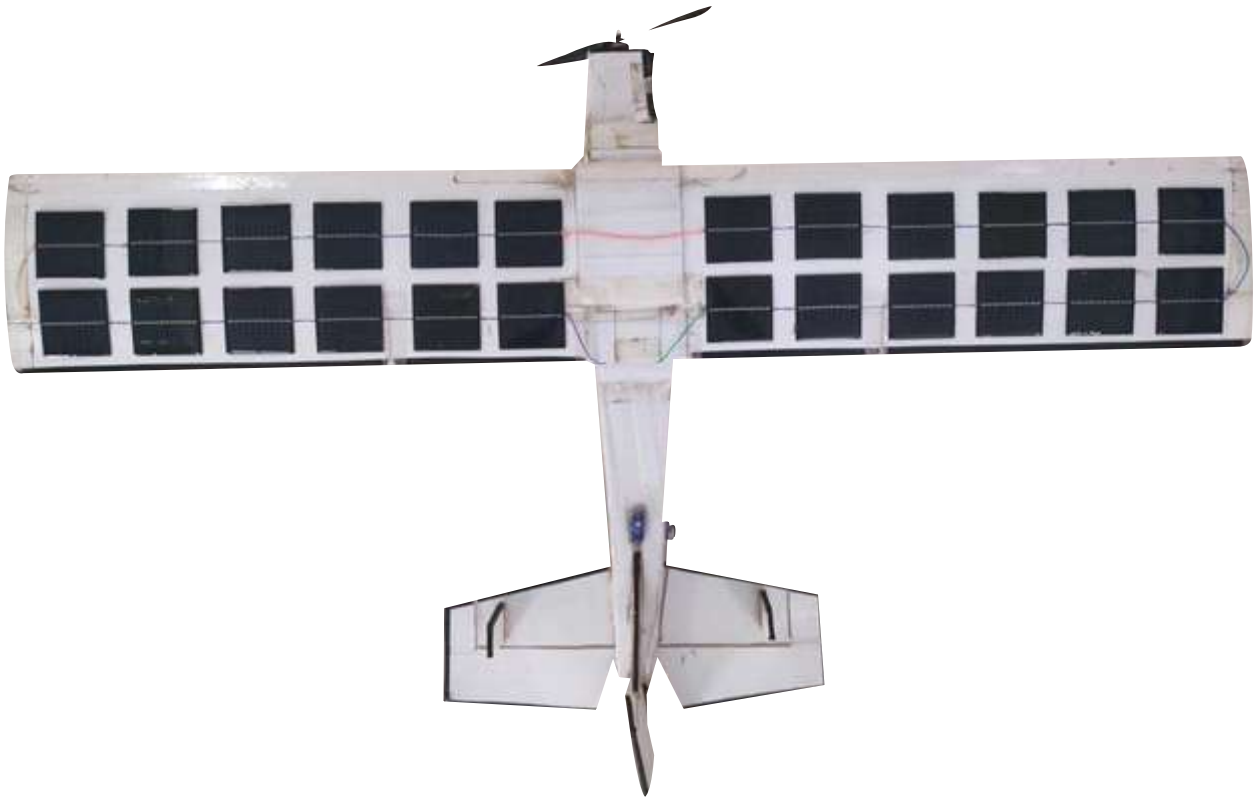
## Miniature Solar Powered Unmanned Aerial Vehicle



The miniature solar-powered fixed-wing UAV, with a 2kg gross weight and 200g payload capacity, boasts a remarkable 45-minute flight endurance and a 5km range. Integrated with SunPower C60 solar cells, it generates 40W of continuous charging power during daylight hours, reducing reliance on traditional energy sources. Its stable fixed-wing design, coupled with advanced navigation systems, ensures precise mission execution for applications such as aerial photography, surveillance, and environmental monitoring. This UAV represents a pioneering solution, offering extended flight duration, reliable performance, and sustainable operation in a compact and versatile package.

## MINIATURE SOLAR POWERED UNMANNED AERIAL VEHICLE

With a gross weight of 2 kg, the small solar-powered fixed-wing unmanned aerial vehicle can carry a 200 g payload. This vehicle will be able to fly for up to 45 minutes and cover a distance of 5 kilometers. 40W of continuous charging power is produced during the day by the extremely dependable Sun power C60 solar cells that are incorporated across the wing surface.



## Our Future Plans

In Phase II, we're focusing on the aerodynamics and structural design of our AI-based Electronic Warfare Drone. This entails refining the drone's flight dynamics and enhancing its structural integrity for optimal performance in challenging environments. By leveraging advanced aerodynamic principles and innovative structural materials, we aim to maximize efficiency, agility, and stealth capabilities. Through rigorous testing and iteration, we're poised to deliver a cutting-edge drone that sets new standards in electronic warfare operations.

## Incharge: Mrs. Mahima P

No. of Products Completed **02**

No. of Ongoing Products **03**

No. of Products Sold **01**

Contact : mahimap@bitsathy.ac.in | 90806 79208

## Objective of the Firm:

To develop a healthy and quality product.

To understand the significance of traditional food and cater to the needs of the consumers

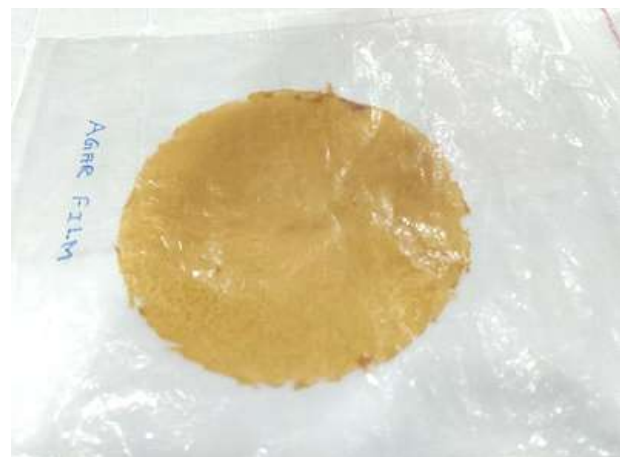
## MYCOCOOKIE

Mycopro Plus nutritional cookies are a novel type of cookie crafted from mycelium, the root-like structure of fungi. These cookies, part of the burgeoning field of cellular agriculture, boast high nutritional value and are hailed for their environmental sustainability. Harnessing the fast-growing and adaptable nature of oyster mushroom mycelium, these cookies offer a promising source of protein, fiber, and other essential nutrients. Their potential to utilize agricultural byproducts or waste materials further underscores their eco-friendly appeal, presenting a flavorful and innovative alternative to conventional animal-based foods.



## PACKAGING FILM FROM SEAWEED

Agar film, derived from seaweed, offers a versatile and eco-friendly solution for various applications, including food packaging. This natural polysaccharide, obtained from red algae, forms a robust and transparent film when mixed with water and heated. Its biodegradability ensures a reduced environmental impact compared to traditional plastic films. Furthermore, agar films are edible, making them suitable for encapsulating food or pharmaceuticals, presenting a sustainable packaging alternative. Additionally, they find utility in agriculture as



biodegradable mulch films and in biomedicine for drug delivery purposes. The extraction of agar typically involves the alkaline method, enhancing its forming capacity, with variations in methods yielding different quantities and qualities of agar. Testing and analysis of properties such as gelling and solubility inform the formulation of agar film solutions, ensuring their efficacy and functionality.

## Our Future Plans

- Biochar water purification: Enhancing water filtration with biochar for safer drinking water
- Mosquito attractant/repellent: Dual-action solution for mosquito control using natural compounds.
- Biobased water container: Eco-friendly containers made from biodegradable materials.
- Herbal-based detergent: Cleaning with natural ingredients, offering a green alternative to traditional detergents.

**Incharge:** Dr. Sanjoy Deb  
Mr. Ramkumar R  
Mr. Gunasekaran M

No. of Products Completed **05**

No. of Ongoing Products **01**

No. of Products Sold **10**

Contact : ramkumarr@bitsathy.ac.in

## Objective of the Firm:

To design and development various wildlife and nature conservation technologies through in-depth R&D. Research outreach to forest department, farmers and NGOs through consultancy.

## ROCKET GUN

The "Rocket Gun" style. It has four rockets that may be fired, and you can choose which one to use. It is intended to strike a target at close range and is extremely directed. It includes an integrated battery, two safety switches, and an adopter/solar panel charger, among other things. It is a very safe and useful tool for managing situations involving intense conflict.



## SINGLE BARREL ROCKET GUN

Single barrel rocket gun made specifically for the Tamil Nadu Forest Department. For convenience of use, this strong instrument has a safety switch, a firing push button switch, and an adapter charger. Its net weight of 800 grams makes it incredibly simple to load and ignite, while its safe and directed firepower helps safeguard crops and properties.



## Our Future Plans

Discussion And meeting completed at Chennai PCCF office and Bannerghatta Forest Department for Implementation of Our Elephant Activity Warning Module (30 units).



# TRACE ROBOTICS

**Incharge: Mr. Senthilkumar P**

**No. of Products Completed** 01

**No. of Ongoing Products** 01

**No. of Products Sold** 01

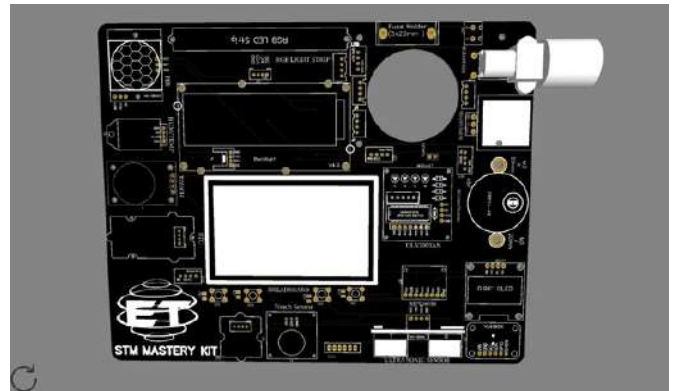
Contact : ramkumarr@bitsathy.ac.in

## Objective of the Firm:

- Trace Robotics is a Mobile Robotics technology firm that designs, manufactures, and deploys robotics systems for industries and the educational sector.
- We combine expertise in robot hardware with robot software engineering to solve operational issues in automation.

## Microcontroller Master Kit

Embark on a journey into advanced microcontroller development with our all-inclusive Microcontroller Kit, a beloved choice among universities and high schools alike. This kit showcases the versatile Microcontroller, meticulously crafted to guide users through professional-grade STM32 platform projects effortlessly. More than just an educational tool, it serves as a stepping stone to lucrative careers in the tech industry, proven to propel enthusiasts into coveted professional roles. Experience the power of innovation and unlock boundless opportunities with our Microcontroller Kit.



## Our Future Plans

Our current focus lies in the design and development of both mobile robots and SCARA robots. We're dedicated to creating versatile and agile mobile robots capable of navigating diverse environments with precision and efficiency. Simultaneously, our efforts extend to crafting SCARA robots renowned for their speed and accuracy in industrial assembly and automation tasks.

# STUDENT'S STARTUP



Within our college campus, a vibrant ecosystem of student start-ups has emerged, totalling 15 innovative ventures. These dedicated student entrepreneurs have been burning the midnight oil, tirelessly working towards the success of their start-ups. The collective effort has resulted in an impressive revenue generation exceeding 2 lakhs in just the past few months. These budding businesses showcase the entrepreneurial spirit thriving within our academic community, emphasizing the potential for growth and success when driven individuals come together to pursue their innovative visions.

# ATMAN GROUPS STARTUP

*"Innovate Elevate Dominate "*

## Vision of Company

In pursuit of our vision, Atman is committed to continuous innovation, relentless improvement, and unwavering dedication to our users' success. Together, we will redefine the way websites are created, empower individuals and businesses to thrive in the digital age, and create a brighter, more inclusive future for all. Welcome to Atman - where your digital dreams come to life.

At Atman, we envision a world where every individual and business can effortlessly bring their digital dreams to life. Our startup is dedicated to revolutionizing the website creation process by empowering users with innovative tools, intuitive platforms, and unparalleled support. We strive to redefine the landscape of website development, enabling our clients to unleash their creativity, amplify their voices, and leave a lasting impact on the digital world.

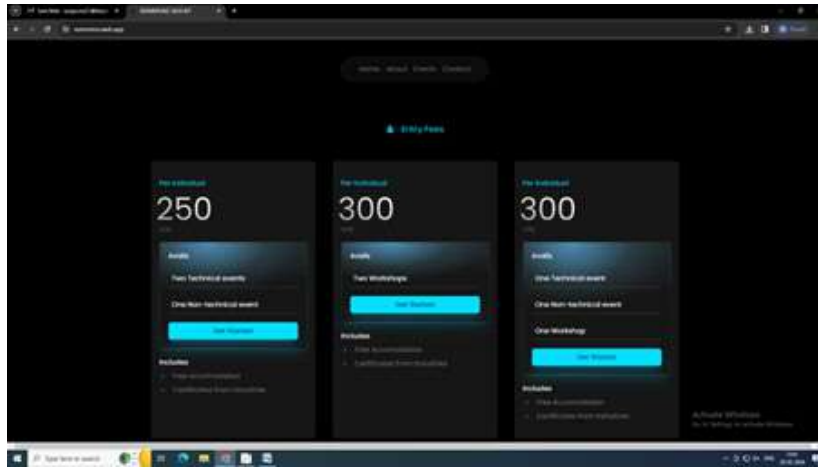
## WEBSITE FOR COLLEGE EVENT

Startup-created websites play a transformative role in empowering colleges to orchestrate successful events that inspire, engage, and unite their campus communities. As colleges continue to embrace the potential of technology to enhance the student experience, startup-created websites stand poised to revolutionize the way college events are conceptualized, planned, and executed. With their innovative solutions and unwavering commitment to excellence, these websites serve as catalysts for innovation, collaboration, and lifelong learning in the higher education landscape.

## ERSMERONZ – EVENT WEBPAGE



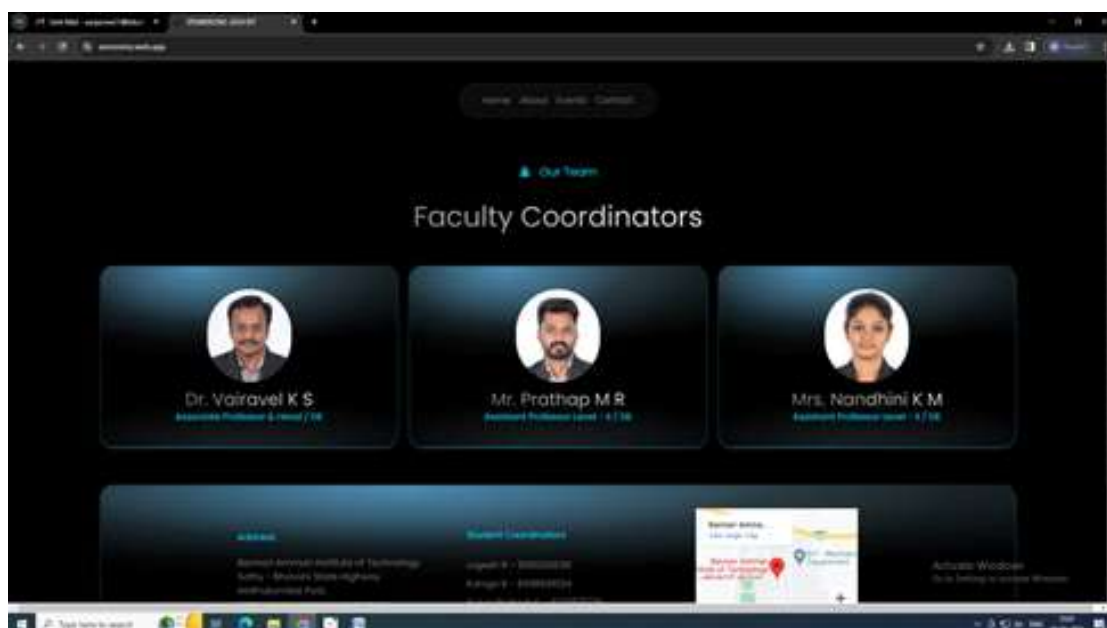
The home page of a website serves as the virtual doorstep, welcoming visitors into the digital realm and setting the tone for their entire browsing experience. It is not merely a landing spot but a carefully curated space designed to captivate, inform, and engage users from the moment they arrive. At the heart of every successful home page lies a strategic blend of creativity, functionality, and user-centric design, inviting visitors to explore further and discover what lies beyond.



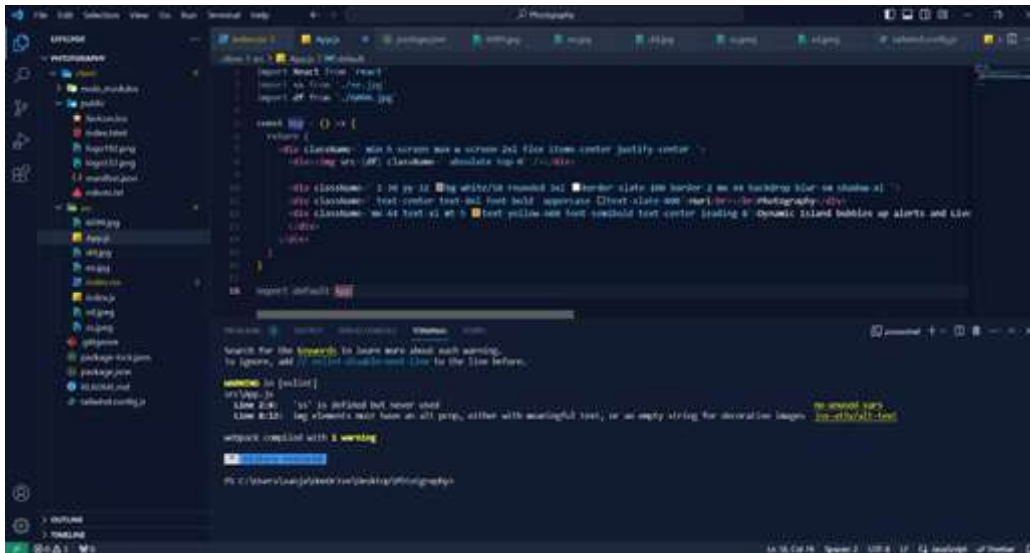
The website is designed to serve as an online special attention to user experience, ensuring that the website is accessible, responsive on various devices, and easy to navigate, allowing visitors to explore Hari's work seamlessly.

- **Dynamic Content Management:** The website's backend is equipped with a robust content management system, allowing Hari to effortlessly update and upload new photographs, write blogs, and maintain a portfolio that evolves with his growth as a photographer.
- **Contact and Booking Options:** Potential clients can easily get in touch with Hari through integrated contact forms and booking options, enhancing his ability to convert website visitors into paying customers.
- **Social Media Integration:** To expand Hari's reach and increase engagement, the website includes social media integration, making it simple for visitors to share their favourite photographs and connect with Hari on various platforms.

Atman Groups' role in developing the "ERSMERONS" website exemplifies their expertise in web development and their commitment to empowering startups and creative professionals with a strong online presence. This project showcases the synergy between a visionary photographer and a skilled web development team, ultimately resulting in an aesthetically pleasing and functionally robust platform for visual storytelling.



In conclusion, the "ERSMERONS" website is a testament to the power of collaboration between Atman Groups and Hari. It successfully fulfills the goal of creating an online space that not only showcases the artistry of Electronics and Instrumentation but also enables to expand their clientele and engage with a global audience. This abstract offers a glimpse into the innovative journey of online presence, highlighting the critical role played by Atman Groups in turning this vision into reality.



## TECHNOLOGIES USED

### React.Js

React is the library for web and native user interfaces. Build user interfaces out of individual pieces called components written in JavaScript.

### Next.Js

The React Framework for the Web. Used by some of the world's largest companies, Next.js enables you to create full-stack Web application

### Tailwindcss

Tailwind CSS works by scanning all of your HTML files, JavaScript components, and any other templates for class names, generating the corresponding styles and then writing them to a static CSS file. It's fast, flexible, and reliable — with zero-runtime

### Framer-Motion

Framer Motion. Complete documentation of the Framer Motion animation library. A production-ready motion library for React.

### Adobe Creative Suite

Software suite including Photoshop, Illustrator, and XD used for designing graphics, layouts, and prototypes.

### Conclusion

In the early stages of its inception, a startup operates in a realm of uncertainty and exploration. With a small team of passionate individuals, often working tirelessly in cramped offices or coffee shops, the startup ecosystem is characterized by a culture of agility, experimentation, and resilience. Every setback is viewed as an opportunity to learn, adapt, and iterate, as founders navigate the choppy waters of product-market fit, customer validation, and scalability.

## MECHONIX- EVENT WEBPAGE

Welcome to MECHONIX, an exhilarating celebration of innovation, creativity, and ingenuity in the field of mechanical engineering. Hosted by Department of Mechanical Engineering, InnovateX is a dynamic event designed to inspire, educate, and empower the next generation of mechanical engineers to push the boundaries of what's possible.



"MECHONIX" brings together students, professionals, academics, and industry leaders from around the globe for a multi-faceted exploration of the latest advancements, trends, and challenges shaping the world of mechanical engineering. From cutting-edge research to real-world applications MECHONIX offers a diverse array of opportunities to learn, network, and collaborate with fellow enthusiasts and experts in the field.

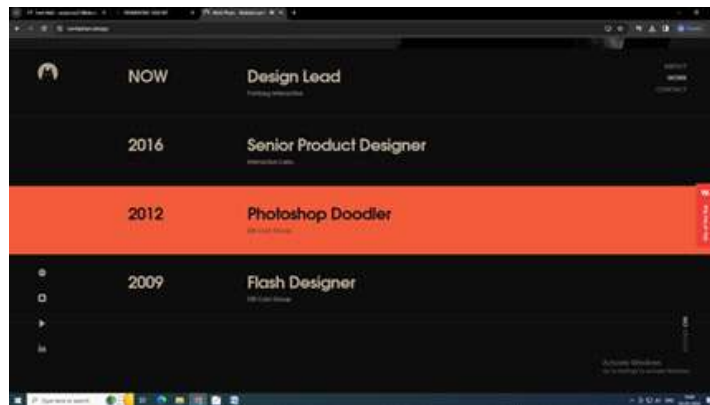


Key components of the project include:

- **Cultural Aesthetics:** The website design is a tribute to the vivid tapestry of Tamil cuisine, celebrating heritage through colors, patterns, and images.
- **User-Centric Interface:** A user-friendly design ensures that visitors can effortlessly explore the range of natural food products, discovering their origins and culinary significance.

- **E-Commerce Integration:** Seamless e-commerce functionality allows customers to purchase traditional Tamil food products securely and efficiently.
- **Targeted Audience Engagement:** Atman Groups crafted a digital marketing strategy that identified and engaged with an audience passionate about authentic, natural food products.
- **Content Marketing:** A content-rich approach included blog posts, articles, and multimedia content, sharing the stories, recipes, and cultural importance of Tamil cuisine.
- **Social Media Integration:** The campaign utilized social media channels to amplify brand awareness and encourage customer interaction.

The "MECHONIX" project is a testament to Atman Groups' dual expertise in web development and digital marketing, empowering businesses to harness the full potential of their online presence. An aesthetically pleasing and user-friendly website enhances the visibility of the event, attracting more attendees. By incorporating visually appealing design elements, engaging content, and intuitive navigation, the website can captivate visitors' attention and encourage them to explore further.



In conclusion, the creation of a well-designed website for a mechanical engineering event is paramount to its success and effectiveness. A thoughtfully crafted website serves as the digital gateway to the event, providing attendees with vital information, facilitating seamless registration, fostering engagement, and ultimately enhancing the overall experience.

## TECHNOLOGIES USED

### React.Js

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### Next.Js

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Framer-Motion

Framer Motion. Complete documentation of the Framer Motion animation library. A production-ready motion library for React.

## ATMAN GROUPS

**Managing Director**- SANJAI G , MOHAMED IBRAHIM

**Developers** - DHIVYAPRAKASH B

**Marketing Manager** – VIJAY KRISHNA K

**Business Consultant** – VAHIN RS

**Developers** – VIJAYA BAASKAR , VISANTH , THARUN AAGASH KS



# STARTUP NAME: SELFINE

**Idea Title:** HealEr: A Handy Medicine Kit with Timely Assistance

**Description:** Developing a medication management kit, to automate timely medication dispensation and seamless pharmacy refill orders, revolutionizing adherence for individuals with complex medication regimens.

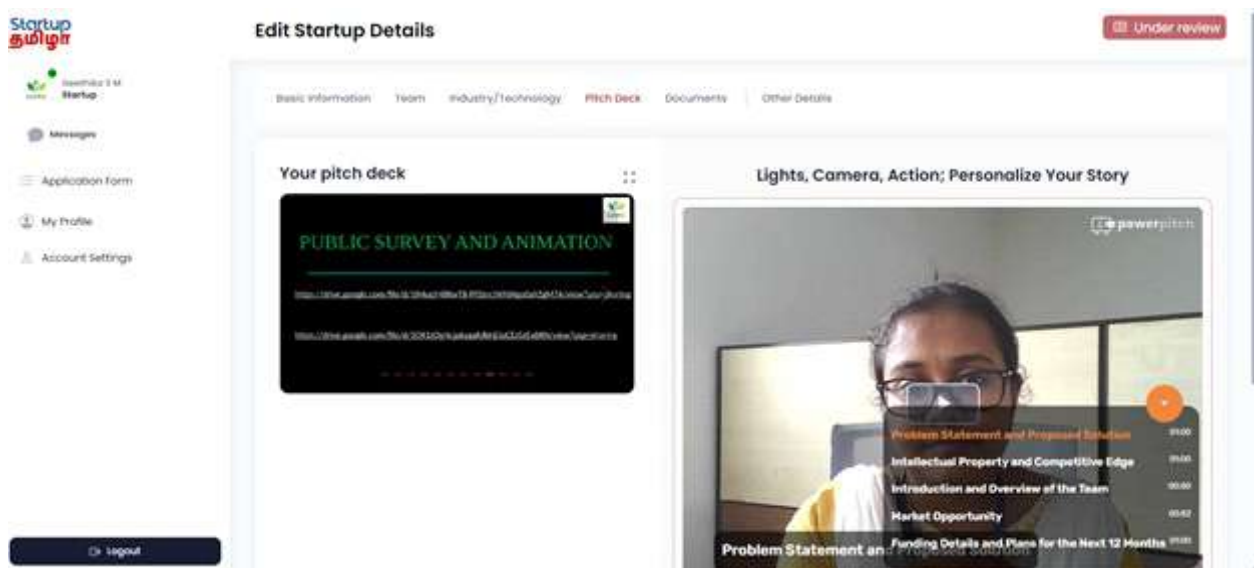
## Technological Stack :

- IoT - Used for timely dispensing of medicines
- CLOUD - firebase is used for storing customers data and prescription details
- App development using Android Studio(JAVA)

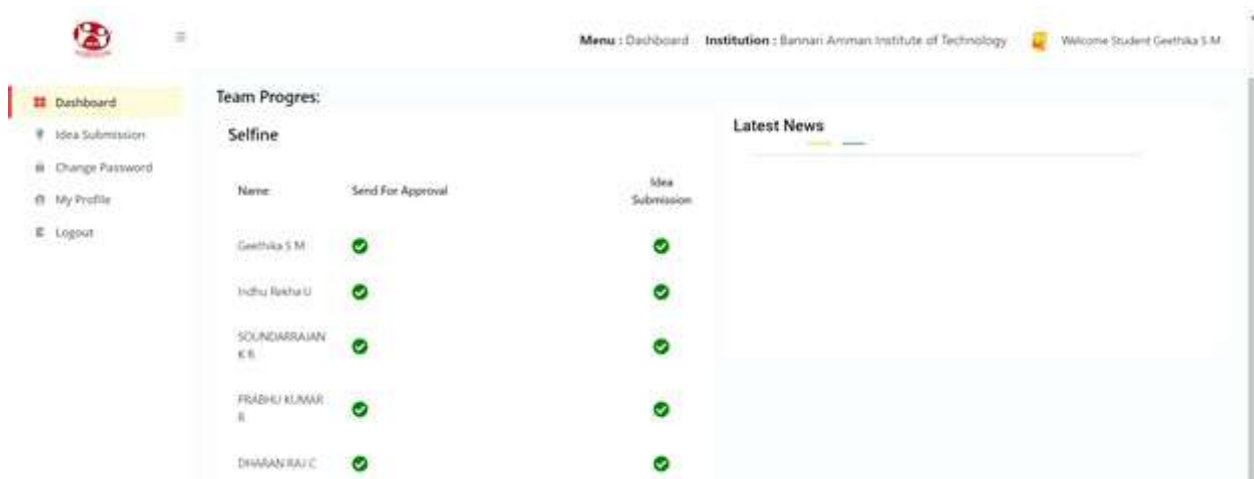
**CURRENT PROCESS:** Developing backend for mobile app using JAVA in Android Studio.

## UPDATES :

1. **STARTUP THAMIZHA** - Round 1 was shortlisted and Round 2 applied



## 1. EDII Hackathon applied.



# 1.Pitch-X: Competitions For Future Founders S2 - XAVIER SCHOOL OF MANAGEMENT

**Pitch-X: Competitions For Future Founders S2**  
Xavier School of Management

Create a team

Team Name **SELFINE**

Teammates (2/8)  
Your team is complete

Looking for Teammates

**GEETHIKA S M** Team Leader  
+919345894997

**INDHU REKHA U**  
+916369412154

+ Add 3rd Member

Invite Friends

● Verified ● Confirmation Pending/Unsaved Changes (Click Update Details) ● Not Added Yet (Click Update Details)

**Pitch-X: Competitions For Future Founders S2**  
Xavier School of Management

Online

#Business Plan #Finance

Rounds & Timeline Details Prizes Reviews FAQs & Discussions

## Pitch-X: Competitions For Future Founders S2: Stages and Timelines

**One and only round**

You can upload your plan only in two formats:- PDF and PPT

Start Date: 16 Mar 24, 06:42 AM IST

End Date: 29 Mar 24, 06:42 AM IST

Submission

# 4. Pitch Tank 2.0 - A Start-up Fundraising Event - GL Bajaj Institute of Technology and Management, Delhi NCR, Uttar Pradesh

**Pitch Tank 2.0 - A Start-up Fundraising Event**  
GL Bajaj Institute of Technology and Management, Delhi NCR, Uttar Pradesh

Create a team

Team Name **SELFINE**

Teammates (2/4)  
Your team is complete

Looking for Teammates

**GEETHIKA S M** Team Leader  
+919345894997

**INDHUREKHA U**  
+916369412154

+ Add 3rd Member

Invite Friends

● Verified ● Confirmation Pending/Unsaved Changes (Click Update Details) ● Not Added Yet (Click Update Details)



# Pitch Tank 2.0 - A Start-up Fundraising Event

Convergence 2024

GL Bajaj Institute of Technology and Management, Delhi NCR, Uttar Pradesh

Online | 🌐

#Entrepreneurship #College Festival #Conclave #Conference

Rounds & Timeline Details Dates & Deadlines Prizes Reviews FAQs & Discussions

## Pitch Tank 2.0 - A Start-up Fundraising Event: Stages and Timelines

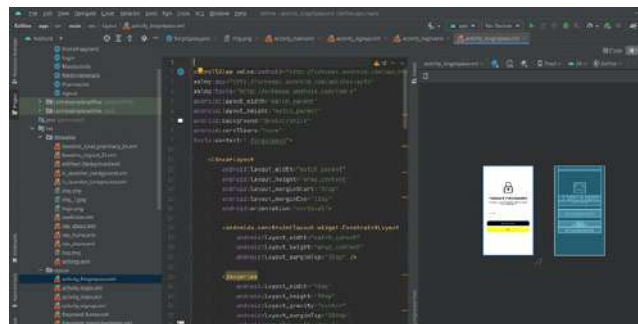
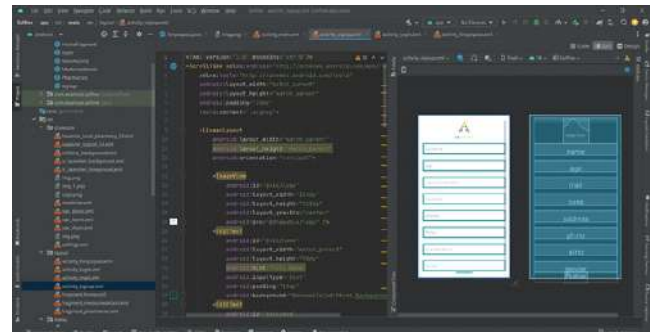
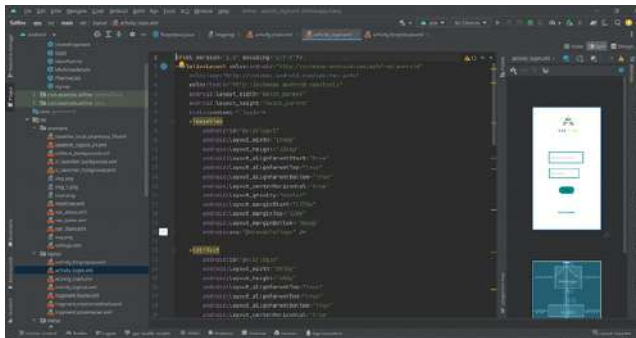
**Live** On Unstop

### Screening Round

All the registered start-ups will be required to submit a pitch deck of not more than 12 slides including the introduction slide. Start-ups that will be shortlisted in this round will qualify for the virtual round of pitching where they can pitch their start-up to our panel of experts who will then shortlist start-ups for the preliminary round held offline on 12th of April, 2024 at GL Bajaj Campus.

<b>Start Date</b>	<b>End Date</b>	<a href="#">Submission</a>
16 Jan 24, 10:43 PM IST	31 Mar 24, 12:00 AM IST	

## MOBILE APP SCREEN SHOTS



**TEAMMATES NAME:** GEETHIKA S M, INDHU REKHA U, SOUNDARRAJAN K R, DHARAN RAJ C, PRABHU KUMAR R