# **BANNARI AMMAN INSTITUTE OF TECHNOLOGY**

**SATHYAMANGALAM - 638401** 

# **BIT - INNOVATION AND STARTUP**

THE LATEST NEWS, VIEWS & ANNOUNCEMENTS - FEBRUARY 2023

### **BIT - STARTUP QUARTERLY NEWS BULLETIN**

PRIVATE CIRCULATION ONLY
ISSUE 06





FEBRUARY 2023 ISSUE:06



#### BANNARI AMMAN INSTITUTE OF TECHNOLOGY

An Autonomous Institution Affiliated to Anna University - Chennai • Approved by AICTE • Accredited by NAAC with "A+" Grade SATHYAMANGALAM - 638401 **ERODE DISTRICT TAMILNADU** INDIA Ph: 04295-226000/221289 Fax: 04295-226666 E-mail: stayahead@bitsathy.ac.in Web: www.bitsathy.ac.in

# **FACULTY AND STUDENTS STARTUP**

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SATHYAMANGALAM - 638401 ERODE DISTRICT **TAMILNADU** INDIA 

# **STUDENT'S STARTUP**

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# EMBETRONICS

Your Techno Partner



# OBJECTIVE OF THE FIRM

To provide World-class design services for complete end-to-end electronic product development from concept definition till production for numerous application areas such as Embedded System, IoT, Embedded Vision and AI.

IN THIS ISSUE

NUMBER OF PRODUCTS

COMPLETED - 2

NUMBER OF ONGOING PRODUCTS - 1

NUMBER OF PRODUCTS SOLD - 1

CONTACT DETAILS

Mail\_ID: rajasekarl@bitsathy.ac.in
Ph. No. : +919600766788

#### MOTION DETECTED SWITCH

A motion sensor light switch differs from the traditional light switch in both design and functionality, but most importantly, the most fundamental distinction between them is the use of a motion sensor to detect movement and automatically turn on the light in a specific area. A Infrared Sensor is employed to detect Proximity the motion of the person. Once the motion is detected it automatically turns on the light and indicates the movement of the person inside the installed area. The product can be used to detect availability of the rooms, the presence of the human inside the room



#### THERMAL IMAGING BASED FEVER DETECTOR



Thermal imaging camera are exploited to detect the body temperature of the person without any physical contact with him. The system can be employed in schools, colleges, malls, offices, hospitals to detect if the person has fever or not. The system assists to prevent the entry of the person with high fever inside the restricted areas to prevent the outbreak of the Covid19 which lead to pandemic situations. The sytem also prevents the spreading of various diseases.

Thermal imaging sensors are microelectromechanical system (MEMS) chips that include an array of detectors sensitive to impinging long-wave infrared electromagnetic radiation (LWIR), in the range of 8- to 14- $\mu$ m wavelengths. All objects above 0 Kelvin and all living organisms radiate in this spectral range, and the intensity of this radiation is representative of their surface temperature

# ACTION PLAN FOR THE UPCOMING MONTHS

- \* To design and fabricate Smart Gate. It has the features of sensing of human body temperature, BITBOT-ROS and face mask dispensing. It is planned to complete in 3 months.
- \* To develop AI-driven grocery product recognition models for vending machines.

# FIRST CHOICE AC SOLUTIONS

Service at your Doorstep



#### OBJECTIVE OF THE FIRM

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

IN THIS ISSUE

NUMBER OF PRODUCTS
COMPLETED - 2

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CONTACT DETAILS

Mail\_ID: ravikumarm@bitsathy.ac.in
Ph. No.: +919786079032

#### SOLAR AIR PURIFIER

A super-activated carbon filter is placed inside the solar air purifier, which collects particles on porous filter media and is perhaps the most efficient means of particle removal. As Aerosol filtration is an effective means of air purification, the issue of a sustainable and healthy indoor environment has received increasing attention.



#### SOLAR CANDLE MAKER FURNACE



To produce candles of a high grade requires an addition of a number of other components. For the time being, the production of candles still relies on more traditional processes that are powered by conventional fuels. These outdated manual methods are cumbersome, unclean, and call for constant attention and care during the process of melting wax, in addition to having a number of other problems. In India, an entirely novel approach to the production of candles has been devised in an effort to address the challenges described above. This method relies on the sun's rays to generate enough heat, which is collected by a Fresnel-shaped Reflecting Concentrating Collector. This heat is then used to melt the wax, which is then used to make candles. The new solar system, in addition to reducing the use of fuels, has various benefits over the traditional techniques of candle manufacture. In particular, the new system eliminates the need for continual attendance while the wax is melting.

# ACTION PLAN FOR THE UPCOMING MONTHS

- \* Fabricating solar operated vapor absorption cum vapor compression refrigerator,
- \* Refrigerant gas leakage detector,
- \* Solar Desalination System,
- \* Solar Water Heater.

# IoT TECHNO SOLUTIONS

Automate Everything



### OBJECTIVE OF THE FIRM

IoT Techno Solutions is a internet of things (IoT) development solutions provider that delivers the most innovative and agile solutions that enable you to automate, inspire and impress. IoT Techno Solutions dedicate hours of painstaking analysis to develop solutions that not only cater to our customers' current requirements but also scale seamlessly for future needs. Most importantly, we always aim to build solutions that Focus on design and development of IoT enabled technologies & solutions which are cost effective and socially relevant on increasing your productivity.

IN THIS ISSUE

NUMBER OF PRODUCTS
COMPLETED - 1

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CONTACT DETAILS

Mail\_ID: tamilselvans@bitsathy.ac.in

Ph. No.: +918012443399

### LORA BASED MODBUS WEATHER STATION

The security system will help you keep an eye on your home while you're away and will notify you if an intruder tries to enter. It will also send you a photo of the intruder on your smartphone. So that you may take the right action. An additional feature has also been added to this project where a user can also capture a photo from his/her smart phone remotely



# ACTION PLAN FOR THE UPCOMING MONTHS

\* IoT TECHNO SOLUTIONS planned to develop new products such as Pet Feeder and IoT-based water level Indicator using ESP8266.

# i Foods

பகிர்ந்துண்டு பல்லுயிர் ஓம்புக



# OBJECTIVE OF THE FIRM

- > To plan to develop healthy food with fortified nutraceuticals
- To enhance the quality of functional foods using the concept of waste to wealth
- To create the customer base through the WA & other social sites. (if possible will develop app based order & bill maintenance)

#### IN THIS ISSUE

NUMBER OF PRODUCTS

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CONTACT DETAILS

Mail\_ID: balakrishnarajar@bitsathy.ac.in

Ph. No.: +919488570421



#### EGG WHITE JAM

Breakfast that lacks protein is not a complete meal. Eggs are a great meal to add to the diets of older persons because of the diversity of nutrients they provide. They are suitable for persons in this age group since they are inexpensive, simple to cook, and have a soft texture. Because jam consumption results in a high-calorie intake, children who regularly eat it are more likely to grow obese and suffer heart disease. Egg whites are a great way to acquire enough protein without changing your body's composition because they are high in protein and low in fat. Eggs have a satiety index that is 50% greater than white bread and porridge. This implies that eating eggs for breakfast might be beneficial and capable of consuming less food and energy throughout the day. Here is the procedure to process egg albumin jam

#### OSMOTIC DEHYDRATED CANDY

Dehydration of fruit and vegetables is one of the oldest forms of food preservation techniques known to man and consists primarily of establishments engaged in sun drying or artificially dehydrating fruits and vegetables. Although food preservation is the primary reason for dehydration, dehydration of fruits and vegetables also lowers the cost of packaging, storing, and transportation by reducing both the weight and volume of the final product. Given the improvement in the quality of dehydrated foods, along with the increased focus on instant and convenience foods, the potential of dehydrated fruits and vegetables is greater than ever. Since, the Guava is rich in various essential nutrients, the process of osmotic dehydration minimizes the nutrition loss during processing.



# ACTION PLAN FOR THE UPCOMING MONTHS

\*I foods planned to prepare the functionally enriched antidiabetic foods and beverages for the people in all the ages. In this regard, the products in the pipeline are as follows

- 1. Cell nutrition cookies 2. Antidiabetic coconut milk
- 3. Bitter gourd candy 4. Functionally enriched antidiabetic jam
- 5. Ready to mix antidiabetic omelette.

# i-PRINT

Print Anything



# OBJECTIVE OF THE FIRM

- > To design and fabricate low cost CNC based machines to match the need 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.

IN THIS ISSUE

NUMBER OF PRODUCTS
COMPLETED - 2

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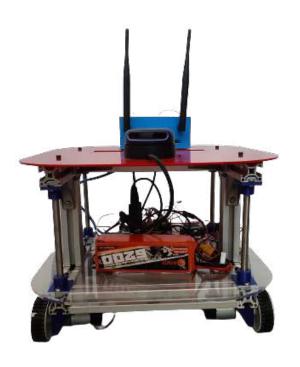
CONTACT DETAILS

Mail\_ID: dhineshsk@bitsathy.ac.in

Ph. No.: +919715367724

# AUTONOMOUS PACKAGE DELIVERY DRONE (APDD)

Autonomous Package Delivery Drone is on the rise for a variety of purposes in areas such as medical, food, postal and delivery, etc. Perhaps the biggest advantage of drones for medical delivery is that they can be flown more easily and faster than other modes of transportation into remote or hard-to-reach areas. Another major advantage of drones in the healthcare industry is the ability to deliver medical supplies to places that alternative modes of transport cannot reach. Drones can reach any place, whereas trucks and motorcycles cannot. In many fields, drones are being used to deliver medical supplies such as vaccines, medicines, blood, and even kidneys, etc.





#### AUTONOMOUS MOBILE ROBOT

An autonomous mobile robot guides visitors who are new to the environment. The robot is equipped with a GUI (Graphical User Interface) that provides the highlights of the available locations. The user interacts with the robot to provide the location where the user wishes to go using the GUI. Based on the data from GUI the mobile robot navigates them to their desired place. The robot gets the information about the place from the pre-saved map. The pre-saved map is generated using a laser scan from the 2D LiDAR and also the LiDAR is used to avoid obstacles. For the navigation system of the robot, the robot uses ROS Navigation Stack for planning the path for the desired location. The whole robot runs by using ROS (Robot Operating System) which acts as a middleware between the software and hardware.

# ACTION PLAN FOR THE UPCOMING MONTHS

\* I-Print have planned to fabricate survey and multi-purpose drones. As per the Government Drone Policy, there is a huge requirement for drone manufacturing and servicing sectors. \*Our firm is also planned for developing full-fledged software open-source software for our 3D printers.

# SKY VIEW

Fly above and Beyond



# OBJECTIVE OF THE FIRM

Sky View aims at developing quality drone parts and provide expert drone services. Sky View design and develop drone parts and assemble them to meet customer requirements. We are capable of building drone 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 services to the Digital Photography customers. We also aims in providing intelligent solutions to industry by promoting the usage of drone

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CONTACT DETAILS

Mail\_ID: lakshmanand@bitsathy.ac.in Ph. No: 9047464901



#### SKY MASTER

Miniature long endurance miniature rotor based Drones which carry a heavy weight payload of 200g utilized for surveillance and target detection. It covers the range of 1Km around the radius flight path

### MINI RAVEN

Hybrid long rectangular wing with winglets introduced in the fixed wing Mini-Raven Unmanned Aerial vehicle. The bottom of the fuselage is designed to attach payloads such as sensors and cameras for remote sensing processes. It has a range of 2 KM and could withstand 30 mins of endurance



# ACTION PLAN FOR THE UPCOMING MONTHS

\* A Professional and sophisticated modern drone will be developed and It can be operated at any Environment.

# TECHNO WILDLIFE

Technology for Wildlife



# 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

#### IN THIS ISSUE

NUMBER OF PRODUCTS
COMPLETED - 2

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#### CONTACT DETAILS

Mail\_ID: saravanakumar@bitsathy.ac.in
Ph. No.: +916381311652

### ROTATING LASER PROJECTOR WITH CROPLAND SCANNER

An original automatic waterproof 220-volt long range rotating LASER light device will scan the entire cultivation land and will keep wild animals away.

Specification:

Body- Strong hot water pipe

Mode - Day Mode (OFF) or Night Mode(Light ON)

Power- Integrated battery and charging solar panel

Weight - 2kg



# LONG RANGE ACOUSTIC DEVICE (LRAD) TO DRIVE THE ELEPHANTS

Acoustic device is designed for contactless elephant drives. The sound is beyond the hearing threshold and will cause ear pain within a few seconds. Automated Acoustic Animal Deterrent System, a distributed ear piercing noise generator for wide area application.

#### Specifications:

- 1. Evening Auto on morning off.
- 2. Fast, medium and slow automated light and sound pattern.
- 3. Red colour flash light and deafening buzzer sound of 120dB.
- 4. Fully waterproof, compact & low-cost module.



# ACTION PLAN FOR THE UPCOMING MONTHS

Our future plan is to develop the

- (i) low cost LASER based elephant detection and alram system to train drivers
- (ii) Hand held high personal safety sparking device and
- (iii) Motion Triggered Acoustic Safety Device.



#### ABOUT THE FIRM

Chronic obstructive pulmonary disease (COPD) is the third leading cause of death worldwide, causing 3.23 million deaths in 2019. Nearly 90% of COPD deaths in those under 70 years of age low- and middle-income occur in IPAP. countries (LMIC).CPAP, VENTILATOR, NEUBILISER, Oxygen Concentrator From the above five machines Oxygen Concentrator plays a vital role and its highly sensitive to produce.



#### MODEL

Our product aims in creating affordable and portable oxygen concentrators without losing the efficiency of the machine. The most effective Zeolite is used to produce the oxygen concentrator. The simple and effective design is used to operate solenoids and for the oxygen sensor



# ACTION PLAN FOR THE UPCOMING MONTHS

\* To reach industrial standards for seeking approval from National Accreditation Board for Testing and Calibration Laboratories.



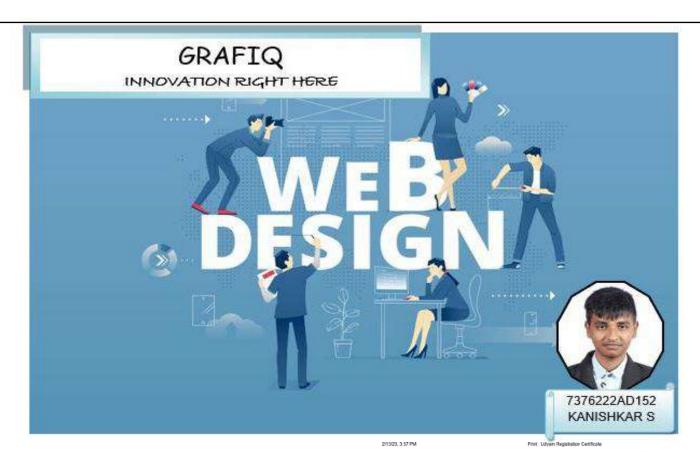
#### ABOUT THE FIRM

Farmers, landowners, and activists make up our initiative. By voting in DAOs, farmers give activists authority. We employ an algorithm in which farmers' votes are used to grant activists and authority tokens. **Activists** conduct surveys, care after the land, and conduct thorough study on farmers and their dependability. Farmers are then loaned and identified by landowners in an analytical manner with the help of activists. Additionally, we help the farmers by giving them loans and insurance, which protects them. By analysing crop wealth, farmer labour force, harvested resource use, and farm product usage, we are able to generate profits. As a more dependable and secure exchange token in this situation, we employ CUSD



# ACTION PLAN FOR THE UPCOMING MONTHS

\*Through ReFi, a new e-commerce platform will develop using goods, NFTs, and a crypto currency market place for real estate, avatars, and other items. This guarantees the re-evolution of farmers and a love for farming by supporting ReFi through modern



#### ABOUT THE FIRM

Grafiq is a digital service based startup which helps brands to improve their identity through clear designs and publish their websites and other multimedia works such as video editing, 3D and Game development and also UI/UX designs.

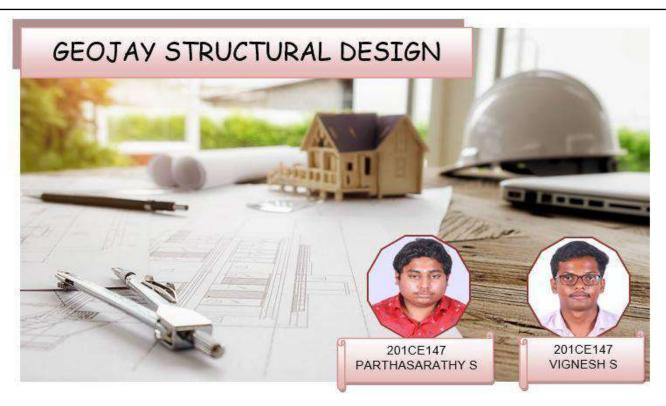
Two published projects

- navalkart.com
- kingtraderss.com



ACTION PLAN FOR THE UPCOMING MONTHS

\*To collab with other my friends and to conduct workshops in my stream and build a better community



#### ABOUT THE FIRM

Geojay Structural design is the process of determining the strength, stability, and rigidity of a building, bridge, tower, or any other type of structure. It involves analysing the loads that a structure will be subjected to, such as its own weight, wind, earthquakes, snow, and the weight of people and equipment, and then designing a structure that can withstand those loads. Structural design also involves considering factors such as the cost, ease of construction, and aesthetics. The result of this process is a set of drawings and specifications that describe the shape, size, and materials of a structure, as well as the details of its construction.



# ACTION PLAN FOR THE UPCOMING MONTHS

\* Our Geojay Structural design is planning to provide the industry with suitable techniques and tools to maximize a construction project's efficiency and quality.



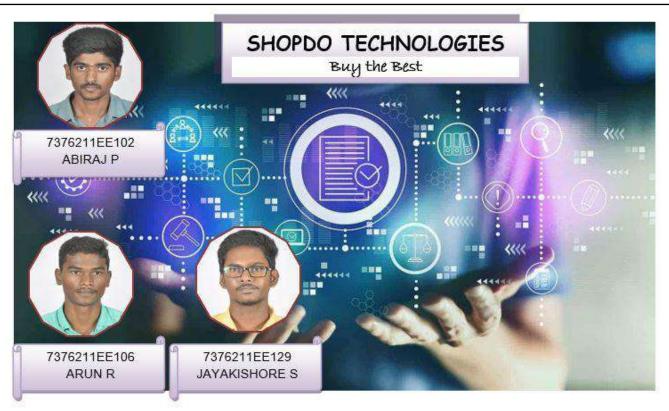
#### ABOUT THE FIRM

Evnzone is the best event management software for planning events from beginning to end. The platform can manage everything from venue acquisition to providing data-backed event analytics, it can aid you in organizing and promoting events that generate a dedicated following. A unique feature that Evnzone provides is the ability for guests to manage their hotel reservations through custom booking sites that you can personalize to fit your brand. Evnzone focuses on allowing users to register for events, check-in, receive personalized agendas, provide feedback via surveys, and network privately with other guests. This online event management app also helps with event promotion by sending out email invites and promotional codes



# ACTION PLAN FOR THE UPCOMING MONTHS

\* After developing the event management app, we have planned to develop a startup and began to generate revenue.



#### ABOUT THE FIRM

Providing App solutions for all local vendors and local Merchants through our single Application with customer interaction at free of cost



# ACTION PLAN FOR THE UPCOMING MONTHS

- \* Develop the App with more templates for all categories
- \* Publish in the Google Play Store and make it available to all Merchants.



#### ABOUT THE FIRM

Zobostation is an outsourcing company that provides character modeling and concept design services for the video-game, movie and collectible industry.

#### **PROGRESS**

Revenue so far: 15,000

Opportunities - cyberlab studios,

freelancing

(Invoice submitted separately)



# ACTION PLAN FOR THE UPCOMING MONTHS

The field of 3D character art is constantly evolving, and there are several exciting future plans for 3D character artists. Here are some potential directions that this field may take in the coming years:

- -AAA game creations,
- Cinematics
- Virtual reality and Augmented reality

#### Potential clients:

- Game industry
- Film industry
- Metaverse