

# **SUCCESS STORIES OF PROJECTS DONE** **DURING 2018-19**

## **DIGITAL UMBRELLA CASE STUDY**

### **1. Student team details with contact number**

Adib Mansuri 9898813463

### **2. Brief about the innovation**

- Digital umbrellas are specially designed for police, security guards, street vendors and people who have to survive the whole day under the sun and this umbrella is fixed or compact and portable with built-in solar panel fan, flashlight, water spray, USB charger. With the help of solar panel energy is produced which converts into electricity and we can use fans under the umbrella, use flash light, also charge the phone, and use mist spray during summer.

### **3. Startup entrepreneurial journey.**

- The journey started from LJ Innovation village at LJ. I had a rough idea of my product. The best part of LJ Innovation Village was that it catered many visitors, they validated my idea and found it much useful. Mentors who visited the LJIV exhibition also found the idea very lucrative for solving the issues of vendors and traffic police particularly. Following that with continuous mentoring from the Incubation and Innovation team on design, technicality and market feasibility, I came up with 2 prototypes, one was heavy structure and another is a lighter version. We implemented the heavy model at LJ Institute, for the security guards and the light structure at police chowk (Sarkhej & Ujala circle) which was found useful for the police and we got lot of appreciation from police, media and even scientists and researchers from ISRO and IIT shared a message of appreciation with us.

### **4. Contribution of LJIET NEWGEN IEDC in the same**

- Under LJIET NEW GEN IEDC, mentors from the incubation center helped us from all the directions when and where it was needed to shape my idea into a product. The mentors helped in designing the structure and we got training from mentors from our field and other fields too. The incubation guided very well from beginning till the date, from idea validation to market placement.

### **5. Future plan**

- As it is in the final prototype stage and we are doing testing on it. So we want to

commercialize the product.the next stage we to do marketing through both online and offline sources. As this product is useful in every area like police,security guards, street vendors, beach, resort.



## **PHOENIX**

### **1. Team Members:**

Harsh Patel: +91- 9408112506

Priyam Shah: +91-9924368288

### **2.Brief about the innovation**

Approximately 15% of the world's population, experience some or other form of disability and generally developing countries experience a higher rate of disability between 110 million and 190 million people, i.e., approximately one-fifth population experience significant disabilities. Government of India is a signatory to the promulgation adopted in the meeting to launch the Asian and Pacific decade of disabled persons year 1993-

2002 at Beijing from 1st to 5th year December had to implement a law for the benefit of the disabled citizen. Hence the persons with disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act 1995 was passed in the parliament. Disability includes vision impairment, deaf or hard of hearing, physical disability, mental health condition, acquired brain injury. Phoenix focuses on three types of disability, i.e. Deaf, mute and low vision. Technological inventions are rapidly advancing in every field. However, surprisingly there are very few researches or inventions which are conducted for disabled people.

Young people transition from a state of the dependent minority to an independent adult identity have been measured in terms of a developmental stage model. The key markers of adulthood have commonly been regarded as leaving full-time education and entering the labor market; moving out of the parental home to establish an independent household. However, in the case of deaf and mute people, they lack quality knowledge and education which have direct effects on their upcoming future. Generally, it is seen disabled children have limited long term memory and, in normal education sessions, they experience the difficulty to retain a learned concept. It is necessary to design certain activities for disabled children which on the one end introduce novelty and create new challenges, and on the other end include moments in which children repeat and consolidate what they have previously understood.

Disable person finds quite difficult to get proper employment which affects their social life as well and if they can find a job then sometimes it's seen these jobs are below dignity jobs which overall sabotage their confidence towards work. However, it is understood that disable people are more focused as well as dedicated to their jobs. Due to the expected deterioration in the working-age group, especially in European countries, people with disabilities are now more often acknowledged as a valuable resource in the workforce, and research work in the field of disability and their employment facility is more important than ever.

POS is an efficient method to automate the checkout method, providing a faster and better customer experience. It can be found almost in every Retail store, Restaurants, Clubs and Bars, Supermarkets. Point of sale (POS) terminals have been in the market for many years now but there are hardly any devices or inventions which enables a low vision, or a deaf or mute operator to interact with customers without the need of an additional helper. If a person has low vision, is deaf or mute, it is very difficult for him to get employment in any industry as communication with them is crucial and thus, the person has to be dependent on some alternative sources of income which may be not sufficient to earn his livelihood which leads them to a happy life.

Team Phoenix is working on developing a device which is specially designed for mute, deaf person people the device has been developed which enables a person with relatively

low vision (not blind) to view the screen placed at the sales terminal (counter) of shopping malls, theatres, departmental stores, offices, etc. The device has 'braille' engraved on it so such low vision people can also operate the system efficiently. Systems have been developed which enable a person with low vision (not blind) to view the screen placed at the point of sale counter of departmental stores, shopping malls, offices, etc. Such people can be trained to use braille script also. The device is designed keeping in mind the needs of disabled people so that they can easily learn and operate the device without any technical expertise.

### **3.Start-up entrepreneurial journey**

In December 2018 we started a survey regarding difficulties faced by specially-abled people in finding employment, We have long been associated with Blind People's Association based in Ahmedabad and have made several friends there. Conversations with them have helped me deeply understand their financial issues due to a lack of employment opportunities. With an aspiration to use my skills and knowledge to impact the community around me, I decided to work on a project that could help these people combat their issues. Hence, I started working on a project named 'Phoenix' and started surveying on the internet, visiting government institutions, and meeting the regional employment officers to understand the employment opportunities in our society for differently-abled people.

Through the first-hand data collection, I came to know how most of them got their employment through local shopping malls and departmental stores, where they were entrusted with stacking and piling up the goods for the stores' inventories. Upon careful analysis, I filtered my work to concentrate on updating the Point of Sales Terminal System and make them user-friendly for specially-abled people. This was followed by a dedicated phase of working on the designing and modelling of an IoT based device.

### **4.Contribution of ljiet newgen in the same**

Talking about our journey with LJIET Incubation centre, the journey begins the day when I first met Ms. Debopriya Chakroborty and that was the turning point for the idea. Holding a few sheets of sketches and a vague idea in my mind, our first meeting lasted for 1 hour where Debopriya ma'am guided me who should I figure out our plan and how to define a road map in order to implement the idea, In 2-year journey Debopriya Ma'am has been a guide and mentor, her motivating attitude and ready to help nature has helped us a lot, from selecting mentors to help in research work she has always been a strong pillar for our team. Also, Bhushan Sir who helped us with the design and other hardware aspects of the development phase. Talking about Rahul Sir, our development and testing

may not be possible without his constant guidance, he also helped us a lot in getting a few pivotal hardware components which one doesn't get easily in the market. Evolution of our POS system from sheets of white paper to a 3D printed model without Sagar sir's designing expertise. Sanket Sir's vast network and industry experience have provided us with an opportunity to get exposure outside the college campus. And at last Viral Sir's exemplary vision has always been the guiding light. We feel fortunate enough that we are incubated at LJ.

We cordially thank the entire LJ team for their constant guidance and motivation  
Team Phoenix!

## **5.Future Plans**

Emerging future trends in the interaction of identity and disability as a homogeneous whole. There are certain issues whose identity relates to the type of impairment experienced with disable people and the range which impairment covered by 'disability' is enormous. Though categorizing disabilities is problematic, the following paragraph will focus on three types of disability in order to demonstrate how different impairments can relate to issues of identity: intellectual disabilities, and D/deafness.

The device provides an interconnection between all the systems working within a specific area to provide the performance boost to system functioning so the author will try to create a private network for the system which can enable the interconnectivity between them. Also, the devices for store inventory authors are planning to apply several 'data analytics algorithm', to keep a track record about goods sold and to provide a statistical report for the sales of a particular entity in the company. Thus, the PWD personnel can act as a helping hand for the store's inventory management which is overall beneficial for the companies.

