



# LeadingIndia.ai Present 24 Hours Nation Wide Hackathon

## Join Us For VESAITHON 2019

### PROBLEM STATEMENT RELEASED

For eligibility & registration, visit

<https://vesaithon.ves.ac.in/>

## Problem Statements

### Elderly Problem Statement

**1. ELDERLY ISOLATION - How might we encourage elderly to further interact with other members of their community, so as to reduce social isolation?**

A platform where elderly people can form groups with like-minded lot. An user friendly application which will help them with navigation and tell them how to go about your application. Collect points as to why do they experience social isolation and how your application proves to be a solution for that. Based on their interests suggest cultural gatherings or get togethers nearby.

**2. MEDICAL COMPLIANCE - How to caution the users and inform relatives or near and dear ones in case of emergency?**

Senior citizens often meet with small accidents (like losing their balance and falling down) especially when they are alone. Sometimes, they even fall off their beds resulting in grievous injuries. In many cases, the family members are not even aware of these happenings until very late. Also, in some cases, these falls can possibly be avoided, and in most cases, the impact of the fall can be reduced if medical attention is provided quickly.

**3. CAREGIVER STRESS - How might we support caregivers in their caregiving tasks so as to reduce workload and stress?**

Medicines need to be taken at particular time intervals and in prescribed quantity. Design a platform which reminds the elderly people to take medication as prescribed by their doctors. It should also record past medications so that doctors can know the history of patient if required. The application should learn from the habits of the elderly and accordingly suggest to the caregiver the dos and don'ts. Also, the caregiver should get information about allergies, medications, etc of the elderly.

## **Kids Problem Statement**

### **1. Personalized Learning - How might we encourage independent learning in children so as to improve understanding in important subjects in various languages?**

Personalized learning is probably the most common AI application in edtech today and is a sizzling hot topic in the overall educational sector. In a personalized learning experience, the course material adapts to your unique identity, your interests, and your preferred way of learning and gives you an opportunity to, in your own way, learn what is necessary to advance. A seemingly persisting one-size-fit-all-solution can be applied to a wide spectrum of personalities and backgrounds. AI based tools can be used to leverage personalized education experience after finding their learning pattern.

### **2. Smart Learning- Sometimes kids are reluctant to listen the ideas of parents and teachers/ or to whom they interact on regular basis. How might we inculcate the behavior of doubt solving for children?**

AI powered chatbot along with the visuals can be designed so that they can explore independently and learn important concepts. The chatbot can answer questions based on the complexity and learning ability of the individual kid.

### **3. Improvement of Cognitive Skills – How might we improve kids cognitive skills as in today's world these are the most important abilities to possess? How we can learn from usage pattern of kids, the area of interest and polish it.**

AI based tool designed using some puzzles, games, drawings, stories, cartoons to improve their cognitive skills like thinking, reading, learning, remembering, reasoning etc..

## **Differently- Abled People Problem Statement**

### **1. Skill Enhancement- How might we improve skills/Employment opportunities for disabled people in India**

User should be able to enter their skills and the application should predict the most suitable job. Some banks or institution have special quota reserved for the disabled people. Build a platform to make these people aware about the current job opportunities. Also there should be a portal where they can host a public event and nearby people are notified to attend the same. User interface should be such that they themselves should be able to navigate through the application to find job vacancies.

**2. Navigation Helper - App to map disabled-friendly locations**—In today's busy world, it is hard to get assistance and dependability not being an effective solution it is very difficult for people with mobility challenges to travel to their choice of destination when communication is also a major barricade. How might we provide ways to map disabled-friendly locations and the facilities available at different location.

Portal which calls out the current location, asks where the person needs to travel, give directions to destination. It should notify the person about the nearby places when required. Create modules to detect obstacle and caution them. To provide safe navigation, we can design AI based obstacle avoidance system that can identify the obstacle class and behave accordingly while navigating autonomously. This application may also suggest the easiest mode of transport the person may take to reach the place.

**3. Better Communication Tools – How might we provide better communication tools for disabled people?**

Create a platform where the visually impaired, deaf and dumb people can communicate with anyone in the society. Use real time sign language converted to text, text to speech, speech to text...Etc features for better communication. Special haptic devices can be used to increase the user experience and to support their communication with others.