GUJARAT TECHNOLOGICAL UNIVERSITY
Design Innovation Centre

DESIGN INNOVATION CENTRE

Suppoted Startup Under Design Innovation Centre

(1) Hexglove **Team Member: Manish P Salvi** We have created a system based on IOT in Which hand gestures are converted into text and speech output.	**(2) Indoor GPS Navigation** **Team Member: Utsav Soni** Dealing with the problem in indoor navigation that it is very expensive enough. We will be using Indoor GPS system having the minimum error of 2cm.
(3) Ghee and Butter Milk Machine **Team Member: Purankumar Pemjibhai Sen** In the current solution in market ghee making by heating the butter in a boiler, it is bigger in size and heavyweight and the high cost and the current market machine input is butter and output is only ghee. Our solution is to make ghee from curd to butter, buttermilk, and butter to ghee with a simple, compact, low weight and low-cost machine.	**(4) Helical Spring Cleaning Machine** **Team Member: Meet Joshi** For the cleaning process, the spring to be cleaned is initially placed in a tank or any other container Containing kerosene or similar organic chemical to loosen the grease, adhered to the spring, for ease in Removal.
(5) Quadrupedal Robot **Team Member: Amit Shah** For walking and good stability, hardware of the robotic leg should be light weight and have low moment of inertia though we developed nine-bar linkage mechanism which can be driven by a single actuator unlike walking mechanisms that may use multiple actuators per leg to get the desired motion.	**(6) Aqua clean** **Team Member: Jigar Shah** Wash cloth by structure water its chemical free, save electric city, save water, solves problem of skin disease.

(7) Agneyastra : The Saviour **Team Member: Siddharth Dhansukhbhai Jani** The concept of this drone is to use latest technologies like image processing, high end cameras, walking with the use of its propellers, and to lift the fire extinguisher to extinguish the fire which makes it a hybrid drone. As it is a fire fighting drone its body would be made up of fire resistant material including its propellers, main body, battery case and other parts.	**(8) Design and development of terrain vehicle** **Team Member: Avi Nilesh Patel** These vehicle can run in terrain condition. It may use at hilly area uneven boundaries transportation.
(9) SAND (sanitary napkins dispenser) **Team Member: Bhavya M Lodhiya** The idea behind the project is to help the feminine during their menstrual cycles in locations where finding sanitary napkins is not easy at all as we wish to install such machine in schools or college premises for ensuring proper care and sustained supply of hygienic sanitary napkins and bringing a change in the behavior towards the problem of reproductive tract infections (RTI).	**(10) Kicking Mechanism** **Team Member: Sunil Chauhan** In large scale industries where the task of transferring one object to other is done manually can be transformed into automation by using Kinect camera for the best resolution. Also use of jetson nano motor for tracking the projectile motion is done.
(11) Pneumatic Jack For Variable Loads **Team Member: Jash Shah** We are dealing with a problem of supplying load at variable distance. In this problem we will be using ppr which will convert electric pulse into sufficient amount of load. By using this device we can save energy and fulfil the task efficiently.	**(12) IoT based automatic Solar panel cleaning robot** **Team Member: Pranav Patel** Over here we have got in a solution which will automatically clean the surfaces of solar panels using IoT. By using this type of innovative device we can clean the surfaces sitting in any corner of the world. It will be used mainly in industrial areas, desert areas where amount of sand and dust particles is maximum. For the domestic use of this device we will have a minor variation which will provide necessary amount of cleaning in household area.

(13) Human Powered Treadmill Tricycle **Team Member: Meet Ramani** Save Energy Exercises Equipment Mobile application Vehicle design By designing such kind of equipment we can save the energy as well as we can solve the purpose of exercises. This type of vehicle can be used for mobile application of transportation. We can add the heavy duty rechargeable battery pack and store the energy also which we can use for other applications also.	**(14) Automatic Ladoo Samosa making machine** **Team Member: Ghoghabori Mohamad Akhtar** We Have make Automatic Ladoo and Samosa machine which help to maintain hygiene and demand of sweets.
(15) Low cost Portable E.C.G Unit **Team Member: Ghoghabori Mohamad Akhtar** We made a prototype of a portable ECG Unit that has 3 leads and can measure Electrocardiographs of the heart using pulses of electricity generated during the beating of the heart. The prototype we made was almost 1500 INR. The system is smaller than an average-sized power-bank so it can be carried easily by a doctor for the check-up of patients in the rural areas.	**(16) Design of solar panels automatically cleaning machine** **Team Member: Patel Virenkumar Ramanlal** The principal object of the present invention is to provide a system for cleaning solar panels which is mounted on the said panel on specified guide path on which the machine executes a lateral movement in both X and Y axes carrying spindle brushes and/or roller brushes, the entire operation being monitored and controlled by a programmable logic controller.
(17) Virtual Tounge **Team Member: Dharmik Solanki** Hand gestures to audio	**(18) Foreign object debris detection rover** **Team Member: Ripal Mansuri** Concept of this rover is detect the debris on runway without disturbing airport activities with better accuracy than human.

(19) Planet Sports **Team Member: Hrithik Patel** There should be one stop solution for all passionate sports person to reduce his/her efforts for finding best resources for him/her. Thus, we introduce our project Planet Sports which includes various aspects related to sports like acquiring proper sports items, participate or organize events, live sports news and provide career information.	**(20) Harmeety.com** **Team Member: Harsh Chavda** We designed the web app in which customer can book a table with our application and also avail the discount on the total bill.
(21) Smart Surface Irrigation System **Team Member: Jenil Bambharoliya** The innovation which solves out this problem is automation. By upgrading technology we can automatically control water valves manually as well as automatically. This will solve problems of all the villagers, on next application developed will be user friendly for common man. By using this technique, fields will be properly irrigated and we can wastage of water could also be controlled.	**(22) Digital Umbrella** **Team Member: Adib Mansuri** The digital umbrella is specially designed for roadside winder which they are standing under the normal umbrella. In this umbrella we have added the fan, USB charger, and flashlight.
(23) Sign Language to Speech Translation using Machine Learning method for Better gesture recognition **Team Member: Sudani Vidhya Savajibhai** The idea is to create a sign language to speech conversion system, using which the information gestured by a deaf-mute person can be effectively conveyed to a normal person. The main aim of this work is to design and implement a technique to translate finger spelling (in video form) to speech, using machine learning techniques.	**(24) Neuro and Voice Intelligence** **Team Member: Dharmik Trivedi** The main aim of our project is to develop a system for people who are blind, deaf or physically challenged as well as old age people.

(25) Educational Learning Models for School using 3D printing **Team Member: Jayesh Mahitkar** Our concept is to design, develop and realization of 3D printed educational learning models for enriching culture of innovation in school. These 3D Printed educational learning models add benefits of touch, feel, engage and learn the textbook concepts practically in 3D and inspire students to think more for best understanding in fast and easy way.	**(26) Coconut dehusking machine with automation** **Team Member: Vaghela Ajay** The manual dehusking process of coconut dehusking is time consuming, it's involves labour cost, as well as it is injurious for the labour so we have designed the machine which is removed husk of nut automatically so it consume less time and it's less costlier than other machines.
(27) Go Slow **Team Member: Yashrajsinh Aniruddhsinh Parmar** This project is about traffic awareness and showing accident prone areas. In this project we tried to show accident spots to user so that user gets to know that black spot is coming so, user can get notified of accidental prone areas.	**(28) Gesture Controlled Wheelchair** **Team Member: Muzammil Sheikh** The use of gestures as a way to control can help a lot providing ease and can be more useful for the handicapped.
(29) Sleepy Driver Alert System **Team Member: Paresh Rangvani** We have developed a system which would immediately alert the driver while driving a car if driver falls asleep or driver looks tired. This system can be helpful to prevent many accidents.	**(30) Eco Friendly Composition of Bricks from Waste Synthetic Polymer Bottles** **Team Member: Aman Andhariya** Concept of waste plastic is used in this product. Bricks are prepared from waste synthetic polymer bottles.

(31) E-waste management using Blockchain technology **Team Member: Neel Shah** Transparency of E-waste collection process and secure all the data using blockchain technology.	**(32) My Health Mitra** **Team Member: Falguni Sharma** Patient friendly mobile application provides linear and smooth interaction among multiple people involved in patient's care including Ambulance service provider, nearby hospital admin, doctors, pathologist, radiologist, pharmacist, mediclaim service providers.
(33) CYBER4ALL **Team Member: Sanjeev Singh** The Idea is to design & develop a platform which will be all-in-one centre point for all around Cyber Security Concerns and Services. People of any age group can learn about current Cyber Security and gain knowledge to secure themselves from various Cyber Crimes and Attacks. User will be also provided with latest Courses and training relevant to Cyber Domain.	