



# **SMART INDIA HACKATHON 2019 (HIS2019) PIET PANIPAT**

**March 2-3, 2019**

**Organized by**



**Department of Information Technology, Electronics and  
Communication (DITECH)**

## **Event Details**

**Name of the event:** SMART INDIA HACKATHON 2019 (HIS2019) PIET PANIPAT

**Venue:** PIET, Samlakha, Panipat

**Date:** March 2-3 ,2019

**Organized by:** Hartron Innovation & Startup Hub Gurugram

### **Brief overview**

Smart India Hackathon 2019(SIH 2019) a nationwide initiative of Ministry of HRD, AICTE, Persistent Systems, i4c & Rambhau Mhalgi Prabodhini was organised on 2<sup>nd</sup> & 3<sup>rd</sup> March 2019 in 48 reputed institutes covering the entire nation.

**Problem Statement:** *The Hackathon was organized to provide platform to solve* Pressing problems which are faced in daily lives of a human being and thus to inculcate a culture of product innovation & a mindset of “out of box” problem solving in cost effective ways.

**Focus areas and sectors:** Students from all colleges and institutes (All sectors)

**Role of State Government:** HARTRON organized the event at Hartron Innovation & Startup Hub Gurugram. GOH promoted the event and encouraged the students to participate in the Hackathon

### **Key Highlights of the Event (Day 1 and 2):**

- More than 30 teams participated in event
- Around 200 participants present in over 31 teams
- Number of Universities& Colleges Participated -31 teams

### **Key Takeaways**

- New & Innovative ideas generated in the session pertaining to day to day issues faced
- Connect established between participants of different regions
- Platform provided to think out of the box
- Generation of certain extraordinary products & methodology under the mentorship of over 62 renowned mentors

## Event Pictures

Opening program of the HIS 2019 attended by dignitaries and participants, mentors and briefing to the media about the event.



### The theme given session



### Final day at PIET Panipat

After successful conduct of technical part of event, valedictory function was organized to award the trophy and winning prizes to the winners. Sh. Rajesh Agarwal MD Micromax graced the occasion as chief guest and other distinguished guest were; Sh. Tirolok Gupta from MSME, Dr Vinay Jain from Infosys, Sh. D S Kajal from Hartron, Sh. Hardik Dhamija from Eduserve and Dr Madukkar Deputy Director from AICTE's. Sh. Rajesh Agarwal, chief guest, delivered the valedictory speech and alongwith other guests gave away prizes to winners.



## WINNERS

S no	Team Name	Position
1	Virtual Fit from NIT Tirucherappalli	First
2	Praayaas from Jabalpur team	Second
3	Bit BINARY BOMBER from Chandigarh Team	Third





List of teams

Timestamp	Team Name	Description & Features of Project
3-3-2019 10:50:28	6invincibles	The idea is basically a website that will keep the India regular and interested about FITNESS and HEALTH. The idea will prompt two scheme of our honorable Prime Minister Modi ji. The schemes are Fit India Movement and Skill India.
3-3-2019 11:10:53	CSEC17SIH 2019-46	The special feature of our website is that,we promote the art of handloom weaving,by which it can provide employment to the handloom weavers.In our website you can customize your dream own saree by choosing your favorite color,pattern and fabric.It is also a good platform for the rookie designers as they can design the saree's.If the user can't find thier favorite design then they can keep a request to us through the request panel or by uploading their own designs which will be stored permanently.
3-3-2019 11:17:05	TeamNet	Content Based Personalized Plant recommendation system that assists user in selecting the plant and taking care of their growth.
3-3-2019 11:21:43	Bit Binary Binary	Description - Our idea is to build a virtual personal fitness trainer using AI and deep learning techniques which will bring the automated change in sports and fitness culture in India. Features - Produced a dynamic system with real time feedback. -Clean and user friendly interface. -Integerated with Login API's. -Full support for various exercises. -Responsive and fast video output with optimized algorithms.
3-3-2019 11:23:46	TERM-Inate	women safety is the most important aspect in India today. We always heard bad news like rapes and women trafficking everyday. Police department and government are not able to stop this crimes because they have limited human power. So we are making one system which will help to make women safe and secure in the India. So basically we are providing one application foe the women means user which will use that application in the case of the emergency. When user will press the emergency button live location of the user will be forwarded to the web application which will be hosted by the special department or the police department. so when they will get the emergency location they will provider security to that user. Along with that we are providing Patrolling application which provided only to Authorized users. So when user will press the emergency button it will be broadcast to the Patrolling app and also to the Department. So Any common man , Any NGO working for the women will be the part of the Patrolling app they just need to get the authority from the Department. So in this manner social human power will be added for the women safety and the women will be safe everywhere. So because of this women is getting safe as well as environment will be safe.
3-3-2019 11:26:20	Byte For Baits	The main objective is to develop an application which can operate the garments smartly through smart phones. The application will be focused to provide comfort to the user irrespective of the weather condition just by some clicking operations in their smart phones. The application will have a diverse impact on a wide range of garments apart from wearable products. It will be a mobile application with an user friendly interface and also it will be based on simple architecture of request, processing and response. It will be automatically sense the outside conditions through the hardware installed and provide a soothing sensation to the user. It can also be implemented in the field of security by installing GPS in the wearable garment and tracking them down through this application.

<p>3-3-2019 11:27:40</p>	<p>D'survivor</p>	<p>AUTOMATIC HEADLIGHT CONTROL USING DSRC - is about automatic control of the high beams from the headlight of the vehicle to low beam based on the concept of Dedicated Short Range Communication (DSRC) between the vehicle in order to reduce the accidents.</p> <p>FEATURES:</p> <ol style="list-style-type: none"> <li>1. Cost efficient.(less than 1500)</li> <li>2. Can be installed in any sort of vehicle.( Light to Heavy vehicles)</li> <li>3. Comfortness of driving is guaranteed.</li> <li>4. Easy installation.</li> <li>5. Upgradation of this system includes Internet connectivity.</li> <li>6. Efficient in all weather conditions.</li> <li>7. Low power consumption.</li> <li>8. Operating voltage of the components is low.</li> </ol>
<p>3-3-2019 11:38:43</p>	<p>MAVERICK</p>	<p>The project is an android app as well as a web app, which is built with the following objectives:</p> <ol style="list-style-type: none"> <li>1 Contribution to the “Make in India” project.</li> <li>2 Save and promote Indian art work.       <ol style="list-style-type: none"> <li>3 Help differently able people have earning (create “Grih Udyog”) with the help of NGOs</li> </ol> </li> <li>4 A different experience to the buyers by providing option of customized order.</li> </ol> <p>Features of the Application: The app on the first look, looks like all other e-commerce app (like Amazon, Myntra and all) but the following features make it different from them.</p> <ol style="list-style-type: none"> <li>1 App completely drives new business model/social engagement using software driven methodology.       <ol style="list-style-type: none"> <li>a. We bring NGOs to be mediator between Investors and Differently abled people to help them establishing their “Grih Udyog”</li> <li>b. Our app will provide tutorials, which will be used to teach the art form to the differently abled people.</li> <li>c. With the help of tutorial and NGOs, it will be feasible to teach the art form to geographically far people too.</li> </ol> </li> <li>2 The customers can place their customized order.       <ol style="list-style-type: none"> <li>a. Customer can select the product, fabric, color of the fabric, art form, particular patter of the selected art work and the place on the product where they want it.</li> </ol> <p>Ex: One can say I want a silk saree of red color having a flower by kachhi embroidery only on border.</p> </li> </ol>
<p>3-3-2019 11:46:35</p>	<p>Virtual Fit</p>	<p>From the textile buyer's perspective, irrespective of how the purchase is made, clothes often do not fit as expected due to varying standards of sizes within the industry. The demand for customisations and accessories to existing apparel is also in the increase.</p> <p>On the manufacturer's perspective, the disorganised section of tailors have a dire need to get increased number of orders for a healthy livelihood.</p> <p>Bridging the above gap by using a software product is the idea behind Virtual Fit.</p> <p>Key Features -</p> <ul style="list-style-type: none"> <li>- Machine Learning model implemented using a proprietary dataset of front side photo to measurements.</li> <li>- A mathematical model to convert the 3D Measurements into 2D form, to facilitate simplification of the stitching process.</li> <li>- Providing a seamless way to provide integrations of multiple customisations like collar, sleeve, cuffs etc. from customers to the manufacturers.</li> </ul>

3-3-2019 11:52:57	Gec Hulks	An e-portal for Textile Marketing.It contains the features like: 1. Multivendor system. 2. Multilingual Support. 3.User Friendly Navigation. 4.Mobile Compatibility. 5. Chatbot for weaver and buyer.
3-3-2019 12:07:40	PRAAYAAS	Our project is based on Smart Vehicle System. Which ensures that without helmet rider will not be able to start their vehicle .
3-3-2019 12:15:00	Creative Concepts	In this project we are implementing EBM (Eye Blink Monitoring Technique) to detect drowsiness of night drivers and preventing accidents. The other technologies that detect Drowsiness are EEG or Brain waves monitoring technique. Such a technique requires sophisticated system to map or monitor the brain of subject and determine the state of drowsiness based on the neurological sleep cycle. Though EEG technique is accurate to a larger extent, yet it is not cost effective and has a difficult implementation. On the other hand EBM Technique is dependent on physiological state of sleep of the subject and by understanding it, drowsiness can be detected and accident can be prevented. Drowsiness causing accident can be effectively prevented by designing an embedded system that is efficient enough to take critical decisions during emergency.
3-3-2019 12:18:33	MARX	POT HOLE DETECTION SYSTEM Ultrasonic sensors are used to detect the potholes. When ever there is difference in the readings of the ultrasonic sensors (only if distance increases) a pot hole is detected. Working prototype: A bot with two ultrasonic sensors and with nodemcu micro controller working with arduino Bluetooth module runs on the commands of the remote.The count of the potholes is displayed on an apk app.
3-3-2019 12:58:18	PYMATES	Our idea is to build an application to encourage sports participation and recognition of participating individuals .Our application will tell users about upcoming sporting events happening near them.Registration of participants, organizations,institutions will happen on application itself with valid id proof.Participants will receive "CREDIT POINTS" based on performance to build their social profile on app as well get recognition & acknowledgement.Social profile will be like "LINKEDIN FOR SPORTS".Event organizing institutions will get promotion.Application will also have "CHATBOT" for human-machine interface, which help respond to queries.



<p>3-3-2019 13:59:58</p>	<p>SMART ORIGINS</p>	<p>Keeping in mind the problem faced by the gym members, as the General Gym trainers do not provide the real tricks to build muscles and personal trainers charge a fortune for the same. They just provide them with a general work out card which is not very useful.</p> <p>So to solve this problem we thought of an application which will provide a workout card for the member as per his body measurements. To application, user simply can provide his body measurements or use image processing feature of the app to calculate his body measurements. Further they will be asked what type of body they want like bulk, lean or athletic etc. and about their preferred diet which is veg or non-veg. From this data, we will provide them with a workout card and diet which will be according to their body and thus there will be 100% results.</p> <p>Features</p> <ol style="list-style-type: none"> <li>1. 1152 in total different workouts and diets.</li> <li>2. 576 combinations made to find perfect workout and diet for the user considering following parameters : <ul style="list-style-type: none"> <li>a. Gender (Male/Female)</li> <li>b. Diet (veg/non veg)</li> <li>c. Access to gym or not</li> <li>d. His current level of work out(beginner , mediocre, professional)</li> <li>e. Target Body Type</li> <li>f. Current Body type</li> </ul> </li> <li>3. More than 2500 tutorial videos for all exercises.</li> <li>4. Apart from above mentioned body specific workouts and diet plans even general workout plans are provided for each muscle and 40 recipes for meal plan.</li> <li>5. Image Processing for calculation of body measurements</li> <li>6. Progress charts to depict his body compositions</li> <li>7. Providing near by gyms depending upon user location</li> <li>8. Stopwatch</li> <li>9. Music</li> </ol>
<p>3-3-2019 14:08:08</p>	<p>SAP.RAP</p>	<p>Description: Online license issue and renewal system using pollution control as measure for verification. It is applicable for both new as well as old industries. It include advance technologies like ML for pollution level prediction, Cloud deployment for data storage, IoT based service(sensors) for real time monitoring of air and water pollution. Provides permission for issuing and renewal after analysis of pollutant concentrations.</p> <p>Key Features:</p> <ol style="list-style-type: none"> <li>1. Using digitization to transform industries</li> <li>2. Single platform feature and centralized data storage</li> <li>3. Scalable and dynamic</li> <li>4. Cost effective</li> </ol>
<p>3-3-2019 14:52:22</p>	<p>Alpha-Q</p>	<p>Automation of Detection of Choking in Air Filters - This is achieved with the use of various sensors (LDR, Gas Sensor, Air Pressure Sensor) with Arduino and Raspberry Pi. We also have a web interface built using SQL, Flask and HTML.</p>
<p>3-3-2019 14:54:27</p>	<p>B UNIQUE</p>	<p>Smart robot for defense and surveillance</p> <p>It mainly uses 5 sesors - Temperature, flame, ultra Sonic, PIR Sensor, gas sensor</p> <p>It uses a wireless camera, NODE MCU esp8266 and Bluetooth module.</p> <p>It's used in:</p> <ol style="list-style-type: none"> <li>1. Home security</li> <li>2. Industries</li> <li>3. Borders</li> </ol>
<p>3-3-2019 14:59:23</p>	<p>Error 501</p>	<p>E-Sports portal – Track records, Tournaments, Diet-plan, Recovery prediction &amp; analysis, Selection process, Online coaching, local tournament, sports wise analysis of particiaption etc.</p>

3-3-2019 15:00:23	Incredibles_6	All the description and features are detailed in the design document ( <a href="https://docs.google.com/document/d/1yFnUDbpjmX11JhSZBFaJSWsgbWbLadgBbvPu09IfDs/edit?usp=sharing">https://docs.google.com/document/d/1yFnUDbpjmX11JhSZBFaJSWsgbWbLadgBbvPu09IfDs/edit?usp=sharing</a> )
3-3-2019 15:00:42	INDIGO_RIT	An app which provides a platform to general consumers to easily generate garment designs according to their personal preferences. Allows user to materialise their ideas in fashion with the help of designers and boutiques. Connecting designers across the country. Access to wide variety of designs.
3-3-2019 15:05:07	Solutions Seekers	We envision to use data based decision making for effective water management in India using data from official government resources. For this we will be using the concepts of Artificial intelligence. Our innovation will help the authorities to manage the water efficiently and effectively by predicting ideal water requirements and next rainfalls.
3-3-2019 15:10:14	Rotronix	An effective bike cycle sharing management system using Machine learning and neural network algorithms which acts profitable for both the government and the Company. Features: 1. Demand Prediction algorithm for reducing the manufacturing costs. 2. YOLO.v3 neural network classifier for classification and monitoring. Our solution provides best infrastructure for the start-up to start their green run without going bankrupt unlike other countries.
3-3-2019 15:12:39	Bit_Byte	Home Forest: An initiative to raise awareness about indoor air pollution and providing organic solutions on the digital platform Feature: Sustainable, eco-friendly solution for reducing indoor air pollution. Takes user input for the appliances, suggests plants that absorb the pollutants released by appliances
3-3-2019 15:19:17	Tech Players	Sports and Fitness
3-3-2019 15:21:10	Hydra NMIMS	Intelligent Traffic Management System is our project. The features we are covering are: 1. Traffic density optimization and setting the traffic light limits according to the traffic density in the particular road lane. 2. Using sensor to report the malfunctioning traffic signals 3. Traffic symbols in order to help colour blind people 4. Accident detection and reporting 5. Easy way for emergency vehicles
3-3-2019 15:22:59	Gaiko Teki	The emission of emf from the mobile towers are increased day by day. In India, the maximum frequency range is upto 1800 MHz. This frequency ranges can be collected from the government (database.gov.in). By using QGIS software, we are able to map and view the signals from the towers. The places with user frequency are represented in GREEN. When the signal crosses 1800 MHz, it turns RED. An alert signal is sent to the administrator.
3-3-2019 15:24:46	ASE, Bengaluru	Progressive Web application