Smart India Hackathon 2019 Problem Statements

# 1. Software - Travel

Organisation : AICTE

Title : Software - Travel

Category : Software

Technology : Travel and Tourism

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 2. Software - Finance

Organisation : AICTE

Title : Software - Finance

Category : Software

Technology : Finance

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 3. Software - Miscellaneous

Organisation : AICTE

Title : Software - Miscellaneous

Category : Software

Technology : Miscellaneous

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 5. Software - Energy/ Renewable energy

Organisation : AICTE

Title : Software - Energy/ Renewable energy

Category : Software

Technology : Energy / Renewable Energy

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 7. Software - Smart Textiles

Organisation : AICTE

Title : Software - Smart Textiles

Category : Software

Technology : Smart Textiles

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 9. Software - Sustainable Environment

Organisation : AICTE

Title : Software - Sustainable Environment

Category : Software

Technology : Sustainable Environment

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 11. Software - Sports and Fitness

Organisation : AICTE

Title : Software - Sports and Fitness

Category : Software

Technology : Sports and Fitness

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 13. Software - Agriculture and Rural Development

Organisation : AICTE

Title : Software - Agriculture and Rural Development

Category : Software

Technology : Agriculture and Rural Development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 15. Software - Security and Surveillance

Organisation : AICTE

Title : Software - Security and Surveillance

Category : Software

Technology : Security & Surveillance

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 18. Software - Smart Vehicles

Organisation : AICTE

Title : Software - Smart Vehicles

Category : Software

Technology : Smart Vehicles

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 20. Software - Smart Communication

Organisation : AICTE

Title : Software - Smart Communication

Category : Software

Technology : Smart Communication

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 22. Software - Smart Education

Organisation : AICTE

Title : Software - Smart Education

Category : Software

Technology : Smart Education

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 23. Software - Smart Cities

Organisation : AICTE

Title : Software - Smart Cities

Category : Software

Technology : Smart Cities

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 25. Software - Healthcare & Biomedical Devices

Organisation : AICTE

Title : Software - Healthcare & Biomedical Devices

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Students Innovation is an open category in which teams can propose a digital or product development solution to address a real time issue faced by India under the mentioned technology bucket.  
  
  
  
Please note: The solution has to address an issue which according to you is of significance and can impact our country positively. Teams cannot use the existing problem statements available on the portal, under various technology buckets, to submit a solution. In case this is done, the solution/ team will be disqualified.  
Organization Type  
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 27. Developing Geo referenced map interface using open source technologies

Organisation : ICAR, Min. of Agriculture

Title : Developing Geo referenced map interface using open source technologies

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Rice is the most important crop in India. It is widely cultivated in diverse ecologies and agro ecological zones. Management levels and production constraints vary spatially and temporally in these environments. Therefore crop/location specific management practices are needed to increase productivity of Rice crop. The traditional way of collecting precise information by sampling from fields requires lots of manpower and time. As spatial variations in land, soil, water, weather etc. are influencing the productivity of Rice crop, the modern space technologies can appropriately be utilized to derive the precise information in shorter time. Many GIS softwares like ARCGIS, ERDAS Imagine, QGIS etc are available for analysing the spatial data. These spatial files can be utilised further to integrate with other simulation models or visualise these spatial variations to end users. Hence, development of geo referenced map interface is needed to visualise the map along with attribute data and attributes wise classification of the data. Once developed, this interface can be utilised for any other crops/cropping systems.  
Organization Type  
  
  
 Central Ministry   
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 28. Marathi Language support in smartphone pluggable library

Organisation : NCORD

Title : Marathi Language support in smartphone pluggable library

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Request for a voice bot that understands user requests in Marathi. The library of user request will be provided and updated with time. Example of user request : Book Appointment with Dr Joshi at 5pm. The voice bot can provide responses.  
Organization Type  
  
  
 Industry Personnel   
Created At  
29th November , 2018  
Updated At  
 29th November , 2018

# 29. Building a platform to connect with potential agents and facilitates application process and hiring

Organisation : Future Generali

Title : Building a platform to connect with potential agents and facilitates application process and hiring

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :   
https://youtu.be/b0ozmuzbbvE

#### Problem Statement Details

Description  
 The current rate of Insurance penetration in India is 3.49% of GDP which is still quite low as compared to some of our peers. Such a low penetration, couple with the fact that a large part of India is unemployed or semi-employed gives us a large untapped market available to the industry. The challenge is to get the right talent to utilize this opportunity. Can we create a platform to educate masses about benefits of becoming and agent and provide platform to discover, engage and apply?  
Organization Type  
  
  
 Industry Personnel   
Created At  
28th November , 2018  
Updated At  
 28th November , 2018

# 30. Leveraging technology to Improve customer experience

Organisation : Future Generali

Title : Leveraging technology to Improve customer experience

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :   
https://youtu.be/XwIfZfDbt10

#### Problem Statement Details

Description  
 Insurance is about building trust relationships with customers and the demand for more transparency is now more than ever. A lot of studies have shown that customers care a lot about transparency in their dealings with the industry –clear language, knowing what value they will receive and an open and transparent relationship however, the issue is that they seldom read their policy documents carefully and as a result are not completely aware of what the relationship entails. Can we build a solution to leverage technology (video, voice, QR) to inform them of most important features in a more accessible manner ?  
Organization Type  
  
  
 Industry Personnel   
Created At  
28th November , 2018  
Updated At  
 28th November , 2018

# 31. Enhancing customer outreach by using social media / P2P network

Organisation : Future Generali

Title : Enhancing customer outreach by using social media / P2P network

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :   
https://youtu.be/uJO\_98uooFE

#### Problem Statement Details

Description  
 Social media has now become a crucial part of digital communication strategies. It is now an effective tool to not only increase brand engagement and win new customers but also to enhance our customer outreach by allowing us to tap the social media networks to establish relationships and increase the span of our communication. We need a solution through which we can leverage public databases and social channels or create peer to peer network to reach out to non-contactable customers whose policies are due for renewal or bonus or maturities are lying unclaimed with us.  
Organization Type  
  
  
 Industry Personnel   
Created At  
28th November , 2018  
Updated At  
 28th November , 2018

# 32. Using AR / VR Technology to sell Life Insurance

Organisation : Future Generali

Title : Using AR / VR Technology to sell Life Insurance

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :   
https://youtu.be/8L6CjY5xTUM

#### Problem Statement Details

Description  
 Augmented Reality (AR) and Virtual Reality (VR) offer an innovative way of interpreting the world around us by propelling innovation and driving better customer engagement. How can we make use of this technology to attract and engage couples coming to Future Retail stores and build context for them to buy life / health insurance in stores. The solution should enable the company to showcase value to its customers in a new way by making use of the immersive experience that VR offers, and help the customer to make the right choice  
Organization Type  
  
  
 Industry Personnel   
Created At  
28th November , 2018  
Updated At  
 28th November , 2018

# 33. Digitizing health data from non digitized format

Organisation : NCORD

Title : Digitizing health data from non digitized format

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Request for a reusable, pluggable software component that can read various on-digitized health forms , parse the data. The parsed data should be saved in a portable health record format. Sample portable health record formats are FHIR, CCD, HL7, proprietary health data container.   
  
 Acceptance Features : The system should be able to convert different types of paper forms and other non-digital information stores and convert them into parsable digital content.   
  
The parsed digital content will be stored in a portable format.  
  
Various different portable health information data formats will be supported for example FHIR, CCD, HL7  
  
The structure of the paper forms should have version management.  
  
Library of forms need to maintained.  
  
99% accuracy is expected.  
  
Human intervention should not be required for quality checks of the conversions   
  
Non digitized Condition : The non digitized data quality in case of text will be similar to having being typed. Handwritten text will be present in predefined areas like boxes.Boxes will be similar to of typed quality.  
Organization Type  
  
  
 Industry Personnel   
Created At  
28th November , 2018  
Updated At  
 28th November , 2018

# 34. Securing and increasing productivity of BYOD in classrooms at schools

Organisation : CISCO DevNet

Title : Securing and increasing productivity of BYOD in classrooms at schools

Category : Software

Technology : Security & Surveillance

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Many schools allows students to bring their own devices (computer, handhelds or smartphones) to school to help with their learning. Most of the time now teachers encourage students to access online content as content becoming richer with videos and interactivity. Lots of school might even conduct exams on these devices. Now this increases necessity for teachers to have better control on learning and they would like ability to control/filter website access of student during class as desired per the curriculum.  
  
What we want: A web portal each school can have to give ability to teachers to block/filter websites based on student's names and or classes. You should be able collect student device and username information via wireless access points and apply some kind of filtering using firewalls. Technology Bucket: (Software - Web Development, Networking, Security, Firewall, Next Gen Firewalls)  
Organization Type  
  
  
 Industry Personnel   
Created At  
28th November , 2018  
Updated At  
 28th November , 2018

# 35. Security camera powered with Machine Learning for people detection for queue Data Analytics

Organisation : CISCO DevNet

Title : Security camera powered with Machine Learning for people detection for queue Data Analytics

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Long lines at some specific time ticketing windows and services counter at Railway station, Bus stand, RTO office, Banks and other places could lead to bad services experiences. On many occasions lines are longer at specific time of day but empty/short at other times. It would be very user if real-time and historical queue length can be made available via website or mobile app to user and facility managers. This would in long-term help deliver better experience and smarter cities.   
  
  
  
Key technical challenge to solve this problem is to identify persons in specific area. Cisco Meraki camera with MV Sense utilizes a powerful onboard processor to analyze videos and using Machine Learning algorithms detects persons in specific area. Cisco Meraki IoT ready camera can be used as building block in your application.  
Organization Type  
  
  
 Industry Personnel   
Created At  
28th November , 2018  
Updated At  
 28th November , 2018

# 37. Intelligent natural language search for all our R&D data

Organisation : Dr Reddy's Labs

Title : Intelligent natural language search for all our R&D data

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 We place all our R&D reports, findings etc in the form of ppt slides in a shared folder. Is there a way to automatically build knowledge from these and to help us with insights for any given search term?  
Organization Type  
  
  
 State Ministry   
Created At  
27th November , 2018  
Updated At  
 27th November , 2018

# 38. Analyse organisational productivity & efficiency based on analysis of Outlook email & calendar data?

Organisation : Dr Reddy's Labs

Title : Analyse organisational productivity & efficiency based on analysis of Outlook email & calendar data?

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Every employee uses these tools for communication, and in most organisations, decisions, workflows etc take place on Outlook. Can a tool be used to analyse data on email / meeting flows to determine how work and decisions are flowing etc. (for e.g. https://www.quantumblack.com/)  
Organization Type  
  
  
 State Ministry   
Created At  
27th November , 2018  
Updated At  
 27th November , 2018

# 39. Real-time estimation of Heart Rate under lighting using Smartphone Camera

Organisation : Samsung R&D

Title : Real-time estimation of Heart Rate under lighting using Smartphone Camera

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Real-time estimation of Heart Rate from facial images under different lighting conditions using Smartphone Camera  
  
Smart phone application that measures heartrate using on-board cameras in real-time and non-invasively offers several advantages and have multiple use cases. Detecting heart rate using only camera has an added advantage because in such case the users do not require any skills or compliance, but has to just capture image/video. During exercise, it is often desired that the user can measure their heart rate without any extra accessory. Wearing a wearable during exercise can be uncomfortable to certain users. Catering to the phenomenon of people using camera as the most popular smartphone feature we can address this problem.   
  
This work will predominantly focus on estimating Heart Rate in real-time from facial images captured using smartphone camera. With every Heart Beat blood flows to our face. Whenever our heart circulates blood, the amount of light reflected from the face varies. To the human eye, this variation is invisible. But using image processing techniques we can detect these changes. The underlying principle is to analyse the spatio-temporal variations in the time-series facial images and amplify these variations. The time series of color values at pixels in region of interest is used to estimate the heart rate. For this work data needs to be collected at various lighting conditions: i) Daytime Outdoor (Cloudy and Sunny) ii) Daytime Indoor iii) Night-time Indoor. Data needs to be acquired for resting and exercising condition. This work broadly requires work in the domain of video processing, signal processing and basic concepts of machine learning.  
Organization Type  
  
  
 Industry Personnel   
Created At  
27th November , 2018  
Updated At  
 27th November , 2018

# 41. USE OF VOICE ASSISTANT

Organisation : Harman

Title : USE OF VOICE ASSISTANT

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 The Rural population in India does not have good access to healthcare education . The way voice assistants have helped the urban and western countries population can be replicated in rural India as well if the localization of assistance happens for healthcare education. We will define specific use case for Indian context. E.g. Rural Indian population needs preventing the onset of chronic conditions such as heart disease, diabetes, or monitoring the journey of expectant mothers and babies from physical and mental health perspective. Providing advice for such population on food to eat before and after child birth, right medication, good baby care, right physical recovery advice to mothers etc. Local food recommendations based on the location of individuals considering that there is food and eating habits are different in different regions. It also changes based on season and local customs. This will help in guiding maximum population to be able to follow such an advice or guidance. The focus will be on preventing the conditions and monitoring of the chronic conditions to help keep most of the population healthy and fit.  
Organization Type  
  
  
 Industry Personnel   
Created At  
26th November , 2018  
Updated At  
 26th November , 2018

# 42. REALTIME ACCENT TRANSLATION

Organisation : Harman

Title : REALTIME ACCENT TRANSLATION

Category : Software

Technology : Smart Communication

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Conference calls have become order of the day. Participants attend the conference calls from various locations and nationalities and speak the language differently. This causes hurdles in ability to understand and also how quickly a thought is communicated. This problem is to develop a real time accent translation system based on the recipients' and deliverer's accents. The idea is to achieve far better understanding during conference calls, which will make the communication far more effective  
Organization Type  
  
  
 Industry Personnel   
Created At  
26th November , 2018  
Updated At  
 26th November , 2018

# 43. Web/Mobile solution for Horticultural Crop specific Market , Storage, Value Additions and Price

Organisation : ICAR, Min. of Agriculture

Title : Web/Mobile solution for Horticultural Crop specific Market , Storage, Value Additions and Price

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Through technical and policy interventions India has reached to a record level of 277.49 million tonnes of food grain production becoming second largest producer of fruits and vegetables. However due to inadequate logistic support, lack of refrigerated storage, supply chain bottle necks, poor transport, and underdeveloped marketing channels around 30 percent of the produce is lost falling heavily on the economy of the farming community including woman farmers. Information on crop specific market, prevailing price and minimum transaction cost may be the solution of the problem. Seeing the capacity and reach out potential of web or mobile based application may be of great help. Applying ICT based technical interventions in developing Web/Mobile applications for identifying crop specific market, prevailing price, information on storage facilities,value additions, transportation may help in reducing post harvest losses and adding to improve farmers economy. These technical interventions will become a useful tool for the farming community including women in enhancing their financial returns leading to doubling their income in due course of time.  
Organization Type  
  
  
 Central Ministry   
Created At  
24th November , 2018  
Updated At  
 24th November , 2018

# 44. Web/Mobile based advisory for identification and management of insect pest in agricultural crops

Organisation : ICAR, Min. of Agriculture

Title : Web/Mobile based advisory for identification and management of insect pest in agricultural crops

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Insect Pest take a heavy toll on agricultural crops causing severe loss to the farming community. Crop protection is one of the major component of crop management process. Crops are damaged by attack of disease, insect, nematodes and weeds. Managing them in the field and saving the crop from their attack is a major challenge for the farming community. Our crops are under threat from the day they are seeded til they are harvested causing significant damage to the crop affecting adversely to the farmer's economy. Many factors influence disease development and growth of insect that includes genetics of variety, plant growth stage, weather, soil etc. Most of these information on insects, disease etc has been identified and documented by the Scientists of National Agricultural Research System (ICAR). This documentation will have a better significance if they are reached out to the farming community whenever they need it. Developing a web or mobile app having a complete knowledge base of insect pest carrying its detail in the background will be of great help. It will help in identifying the insect pest in the farmers field based on the damaged symptom or by the image of the insects. On identifying the insect pest the system may provide the management.  
Organization Type  
  
  
 Central Ministry   
Created At  
23rd November , 2018  
Updated At  
 23rd November , 2018

# 45. Diagnosis of acute diseases in villages and smaller towns using AI

Organisation : Max Healthcare

Title : Diagnosis of acute diseases in villages and smaller towns using AI

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Supply of doctors is limited in India especially in smaller towns and villages making provision of healthcare difficult to a large number of people. Telemedicine and other solutions in the past have also struggled to scale up due to this problem. Now in the age of digital assistants like Google and Alexa, can we create artificial intelligence based "doctor" that can diagnose everyday acute diseases like common cold, flu, etc, based on simple questions?  
Organization Type  
  
  
 Industry Personnel   
Created At  
23rd November , 2018  
Updated At  
 23rd November , 2018

# 46. Early prediction of lifestyle diseases

Organisation : Max Healthcare

Title : Early prediction of lifestyle diseases

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 How can we predict the likelihood of lifestyle diseases early to enable preventive healthcare. This can reduce the cost of treatment significantly. Potential solution: using detailed demographic and vital stats about people who have a particular disease and those who dont, technology companies like Google can create machine learning models to predict specific diseases in an individual during physical checkups.  
Organization Type  
  
  
 Industry Personnel   
Created At  
23rd November , 2018  
Updated At  
 23rd November , 2018

# 47. Confidentiality of patient medical records

Organisation : Max Healthcare

Title : Confidentiality of patient medical records

Category : Software

Technology : Security & Surveillance

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Confidentiality of patient medical records is of utmost importance. Access to patient medical records in hospital softwares should be with the treating/admitting clinician and the team. Access to medical records should not be given to everyone in the hospital network.  
Organization Type  
  
  
 Industry Personnel   
Created At  
23rd November , 2018  
Updated At  
 23rd November , 2018

# 48. Increase clinician-patient face time

Organisation : Max Healthcare

Title : Increase clinician-patient face time

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Need to increase face time between clinicians and parents. Clinicians spend considerable amount of time capturing patient information in hospital softwares. Need a technical solution like speech to text option.  
Organization Type  
  
  
 Industry Personnel   
Created At  
23rd November , 2018  
Updated At  
 23rd November , 2018

# 49. Bed management optimization

Organisation : Max Healthcare

Title : Bed management optimization

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Bed management optimization is critical for efficient functioning of hospitals especially for larger tertiary and quaternary care hospitals. poor bed management can lead to a myriad of problems like increased waiting time for patients, underutilized operation theatres, overcrowded ERs. The need for automated bed management is the need of the hour.  
Organization Type  
  
  
 Industry Personnel   
Created At  
23rd November , 2018  
Updated At  
 23rd November , 2018

# 50. Clubbing College projects across India

Organisation : Flucon

Title : Clubbing College projects across India

Category : Software

Technology : Students Innovation

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 The Problem: Students working in isolation at different colleges and many a time on the same subject. Currently, there is no single effectively POPULAR working platform to connect students and faculty all over India. Solution: Develop a platform with POTENTIAL TO QUICKLY BECOME POPULAR amongst students and faculty to overcome the issue so that the students can upload their projects, share difficulties, help one another and share ideas. STUDENT TEAMS ARE NOT JUST EXPECTED TO BUILD ONLY A PORTAL BUT TO THINK AND IMPLEMENT IT IN A WAY THAT THE POPULARITY AND USE WOULD BE ALMOST GUARANTEED. It is expected that besides making a platform the team demonstrates effective efforts to ensure that their project will be PUT TO USE by students all across India.  
Organization Type  
  
  
 Industry Personnel   
Created At  
23rd November , 2018  
Updated At  
 23rd November , 2018

# 51. High Impact Low cost Well-being solution

Organisation : Flucon

Title : High Impact Low cost Well-being solution

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Develop a solution to improve health-care and wellness for masses of India. Most disorders are easily treatable however communicating correctly can be a problem because of languages and cultures. Rural people struggle to communicate their symptoms and doctors fear they may be missing vital information. There are many apps made to address this issue. But in place of imposing a wholly new arrangement, the student team is expected to begin developing a solution that identifies and supports prevailing workfolks that will also overcome time, language and cultural barriers in doctor-patient interactions and improve overall medical care to ensure wellness.  
Organization Type  
  
  
 Industry Personnel   
Created At  
23rd November , 2018  
Updated At  
 23rd November , 2018

# 52. Knowledge based Mobile App for eProcurement SRM (Supplier Relationship Management)

Organisation : BEML

Title : Knowledge based Mobile App for eProcurement SRM (Supplier Relationship Management)

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 A web based app to tutor suppliers on how to use SRM application to facilitate the suppliers to participate in etendering. Presently suppliers are calling the help desk while submitting tenders. To eliminate this and to provide higher efficiency, a package to be developed which will operate in desktops,. laptops, mobiles to facilitate suppliers to undergo self learning process before participating in tender without contacting on a personal basis.  
Organization Type  
  
  
 Central Ministry   
Created At  
22nd November , 2018  
Updated At  
 22nd November , 2018

# 53. Tyre Pressure Monitoring

Organisation : Bridgestone

Title : Tyre Pressure Monitoring

Category : Software

Technology : Smart Communication

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Challenge to monitor the tyre inflation pressure. Large fleets having >100 vehicles extremely difficult to manage tyre maintenance/labor cost. Solution required:- Automotive sensors showing real time inflation pressure through digital platform.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd November , 2018  
Updated At  
 22nd November , 2018

# 56. Find Optimised pattern for arranging the tyres in a truck

Organisation : Bridgestone

Title : Find Optimised pattern for arranging the tyres in a truck

Category : Software

Technology : Miscellaneous

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Problem Statement: Variation in loading pattern causing under utilization of vehicle capacity. lack of compatibility of load plan with vehicle capacity causing changes in load. Solution Required: Need to determine the compatibility of a load plan with a vehicle in optimized manner so as to accommodate maximum tyres with vehicle constraints (Weight & Volume). Results can advice under or over Utilization of available space.  
  
Flexibility in planning to accommodate variation in vehicle dimensions / Chimney space etc.  
  
Accommodate various loading patterns – Horizontal / vertical / cross loading.  
  
Determine the optimal loading pattern with sequence.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd November , 2018  
Updated At  
 22nd November , 2018

# 57. Automation in Tire Visual Inspection

Organisation : Bridgestone

Title : Automation in Tire Visual Inspection

Category : Software

Technology : Smart Vehicles

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Inspection Process:- 1. Qualified Inspector performs the visual inspection of each tire for checking defects. (> 100 types of defects). He confirms appearance Quality of the tire based on Global Standards. Inspection time of tire (inside and outside area) is around 32-37 sec (based on the tire size). Problem Challenge:- Manual Inspection depends on Inspector 's skill and there are chances of missing defects. Solution Required:- Automated System in which Tyre is scanned by an artificial Eye (Camera). After scanning, Output will be compared with the defect specifications and judgement of OK /NG Tires will be done.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd November , 2018  
Updated At  
 22nd November , 2018

# 58. 1. Intelligent Range Estimator 2. EV Smart Charging App 3. Universal EV Charging Adaptor

Organisation : Mahindra Electric

Title : 1. Intelligent Range Estimator 2. EV Smart Charging App 3. Universal EV Charging Adaptor

Category : Software

Technology : Smart Vehicles

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 1. Intelligent Range Estimator with Real Time Traffic Information  
  
Description: In case of EV, the range of the vehicle is the most important and critical information for the customer, which is influenced by the various factors like driving & usage patterns, operating environment and traffic conditions. By utilizing the real time traffic information, drive profile, and environmental conditions, an accurate prediction of algorithm to be developed to address the range anxiety.  
  
  
  
2. Smart Charging App for EV  
  
Description: The major challenge of Indian EV customers is the lack of Charging Infrastructure and its integration into a common App. Smart Charging App developed on to a smart phone either using Android or IOS is to automatically identify the utility provider (charging station) along with rate cards within the specified zone. This is to reduce the wait time for EV charging by reserving the slot in advance. It is also used as a secured payment gateway.  
  
  
  
3. Universal EV Charging Adaptor  
  
Description: Around the globe there are multiple charging protocols and standards followed for EV charging. CHAdeMO, IEC CCS, Bharat Charge Protocol-BCP and GBT are the few dominant fast charging systems. They are not interoperable. The objective of this project shall be to develop a universal EV charge hardware to be used with a vehicle having any of the referred standards. Charge the vehicle having any charging communication protocol.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd November , 2018  
Updated At  
 22nd November , 2018

# 59. Mgmt of material during Disaster- receipt, availability, movement and its receipt to the last person

Organisation : Goonj

Title : Mgmt of material during Disaster- receipt, availability, movement and its receipt to the last person

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 One of the initiative of Goonj is to works with people and for people in the regions devastated by any sort of disasters - floods, earthquake, landslides, cloud burst, drought, winters, cyclones, Tunami etc. Our involvement is in 1) providing relief material in the initial phase 2) providing rehabilitation material to those whose livelihood is severed for eg giving sewing kit (incl machine) to a tailor to restart the livelihood, basic utensils and raw material to someone whose eatery is destroyed and likewise. Our centers all over India, run collection drives for material required as per the type of disaster, regional and local culture. Material need, availability, movement, receipt to the last person becomes quite tedious to maintain. Give us a SOLUTION - to maintain and know the exact material available at each center, what has been dispatched against the demand, record/tally material reached the last location vis-a-vis the dispatch. Account for the material handed over for relief, development activities to the last person at the disaster location. Goonj team in remotest of areas should be able to use the application on the hand held device in online or offline mode. Drill down Dashboards to bring bring in efficiently in operations. So that Goonj team Pan India is updated situation across all Goonj centers.  
Organization Type  
  
  
 State Ministry   
Created At  
22nd November , 2018  
Updated At  
 22nd November , 2018

# 68. Shared Roof Top Rain Water Harvesting

Organisation : GoldmanSachs

Title : Shared Roof Top Rain Water Harvesting

Category : Software

Technology : Clean Water

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Currently, for roof top rain water harvesting, people install water storage tanks individually per building/apartment which results in high cost for individuals/groups. No mechanism/application is available to find out where such installations are beneficial, which installations can share storage tanks and what would be the required capacity of these shared tanks. Given map and housing data, optimize the location of centralized tanks for rain-water harvesting.The following data should be sufficient to design and implement a model to solve the problem:  
  
  
  
1. Estimating rainwater harvesting capacity:  
  
a. Rainfall estimation: Historical data from rainfall gauges at different places in the target area.  
  
b. Catchment area: Masterplan of the city to estimate the catchment area available, e.g open areas like rooftop, courtyard, etc.  
  
2. Optimizing Water tank placement:  
  
a. Water demand/Use capacity: Water supply data can be used to estimate the consumption of harvested rainwater for non-drinking purposes  
  
b. Underground map: Underground map with stability study to identify locations where the shared tank can be built  
  
The system should provide the following output from its analysis:  
  
  
  
1. Plan for laying out the underground tanks with input and output points defined  
  
2. Cost benefit analysis justifying the plan  
  
3. Plan for distribution of build and maintenance cost of a tank for the parties involved  
Organization Type  
  
  
 Industry Personnel   
Created At  
21st November , 2018  
Updated At  
 21st November , 2018

# 70. Online interactive entrepreneur clubs

Organisation : deAsra

Title : Online interactive entrepreneur clubs

Category : Software

Technology : Software - Mobile App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 there are a number of entrepreneur clubs operating in different parts of  
  
the city/state. They are in the form of a gathering of people where people connect  
  
and network for their own business interests. An application is required through  
  
which an online forum is created for these entrepreneurs. This application should enable an entrepreneur to register himself giving details like – Who I am, what do I do, and, What I can give/supply. This application should further match entrepreneurs depending on their interests and “asks” and “haves” automatically. This data will generate fruitful connections for both.  
Organization Type  
  
  
 State Ministry   
Created At  
21st November , 2018  
Updated At  
 21st November , 2018

# 71. An Online video directory for entrepreneurs

Organisation : deAsra

Title : An Online video directory for entrepreneurs

Category : Software

Technology : Software - Mobile App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 A business directory in the form of short videos tagged with the name of the entrepreneur, his business, his USP should be available for people to watch and derive inputs from / or connect. An application to enable people to apply for uploading videos created by them should be available. This application should check first level eligibility for uploading and also have a search and index mechanism, so people can search videos based on the sectors of their interest.  
Organization Type  
  
  
 State Ministry   
Created At  
21st November , 2018  
Updated At  
 21st November , 2018

# 72. Gaming built around business simulation

Organisation : deAsra

Title : Gaming built around business simulation

Category : Software

Technology : Software - Mobile App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 A gaming application required which will create a simulated business environment. This will be played along with other contestants. Some real life scenarios, decision making, impact of the decisions is imbedded into the application. Also, responses of various other contestants to similar situations can be shown as a learning.  
  
This can also gauge their appetite for risk and expansion.  
Organization Type  
  
  
 State Ministry   
Created At  
21st November , 2018  
Updated At  
 21st November , 2018

# 74. Innovative Payment and Recovery System for MSME

Organisation : Dharwad Growth Inds Assn, Belur

Title : Innovative Payment and Recovery System for MSME

Category : Software

Technology : Smart Communication

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 MSME Samadhan Portal was introduced to tackle the issue of delay payments. But industrial units mention that even after registering the complains in the portal, the recovery of delay payments from third party remains a major cause of concern.  
Organization Type  
  
  
 Central Ministry   
Created At  
21st November , 2018  
Updated At  
 21st November , 2018

# 75. Medical Infrastructure Management by Scheduling visits and online access

Organisation : NKSSIA, Hubli

Title : Medical Infrastructure Management by Scheduling visits and online access

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 The ESI/ESIC hospitals are few in numbers across the state and other alternatives are not very common near the industrial estates. Hence, planning and infrastructure ideas are needed to provide urgent and improved medical service near to the industrial estates. Alternative arrangements like local dispensaries or timely visits of recommended doctors and availability of health services should be taken into consideration  
Organization Type  
  
  
 Central Ministry   
Created At  
21st November , 2018  
Updated At  
 21st November , 2018

# 76. Development of Manufacturing Execution System(MES) for the Medical Device Industry

Organisation : Hills2Home

Title : Development of Manufacturing Execution System(MES) for the Medical Device Industry

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Manufacturing Execution System (MES) solutions have the potential to generate efficiencies, improve productivity, and simplify compliance within the medical device manufacturing industry. Used to manage production activities, this class of software typically provides the ability to schedule activity, deliver instructions to operators, synchronize manual activities with automated processes, and integrate with manufacturing computer systems to enable quality control, deviation management and effective enterprise resource planning (ERP), equipment management, and the documenting of floor activities for monitoring and reporting purposes....MES technology enables the replacement of paper documentation with computerized records, known as electronic device history records (EDHRs), which can be accessed in real-time by all users  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 77. Automatic signalling in railways

Organisation : Sara Sae Private Limited

Title : Automatic signalling in railways

Category : Software

Technology : Smart Communication

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Electronic Interlocking with centralized operation of points and signals should be provided to eliminate human failure and to replace old mechanical systems. Centralized Traffic Control (CTC) System will help in real time monitoring and better management of trains. It provides for remote operation of signals from the centralized traffic control office  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 79. Online Virtual Exibition Platform

Organisation : Consultant & Professor, DIT Universtiy, Dehradun

Title : Online Virtual Exibition Platform

Category : Software

Technology : Miscellaneous

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Virtual Exhibition platform brings traditional exhibitions to digital era. Virtual exhibition offers a solution for exhibitors and businesses to attract and contact customers, investor and suppliers cost effectively via internet in 3D environment MSMEs can set up their own stand or even build their own showroom. They can easily distribute product brochures in electronic form, display slide show and video presentations, or even bring their own product as a virtual 3D model for viewing. The space allows for a more affordable attendance at fairs, including fairs that you may not have the resources to attend otherwise.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 82. Privacy Management System in Drones Data Collection

Organisation : CITD, Hyderabad

Title : Privacy Management System in Drones Data Collection

Category : Software

Technology : Robotics & Drones

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Description: Privacy means different things to different people, but flying drones with cameras, scanners, and sensors give nefarious people far more capabilities than ever before as they can easily gather information from Drone by using wireless technologies which is dangerous. Hence Privacy rules need to be incorporated in the operating system of the Drone so that information carried by Drone will be safer, which the major challenge  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 83. Intrusion detection and Recovery system for Drone Signals

Organisation : CITD, Hyderabad

Title : Intrusion detection and Recovery system for Drone Signals

Category : Software

Technology : Robotics & Drones

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 "signals are far from perfect. If a signal is lost, hacked, or hijacked, the drone must either return home or be removed from danger which is the biggest challenge."  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 84. Black Box Logging system for Drones

Organisation : CITD, Hyderabad

Title : Black Box Logging system for Drones

Category : Software

Technology : Robotics & Drones

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 During fly time whenever a drone crashes, it is impossible to get information about the place and reason for crash  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 85. Autonomous Drones Disaster identification and alerting system

Organisation : CITD, Hyderabad

Title : Autonomous Drones Disaster identification and alerting system

Category : Software

Technology : Robotics & Drones

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Drones will invariable fly into unusual situations, and whether it’s swarms of bees, bird attacks, lightning strikes, or signal jammers, they will need to alert operators of problems as soon as they arise  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 92. Power Consumption Monitoring and Recommendation System for Efficiency Improvement

Organisation : Sadanand umberwadekar

Title : Power Consumption Monitoring and Recommendation System for Efficiency Improvement

Category : Software

Technology : Energy / Renewable Energy

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 There is a need for innovative and viable methods to reduce electricity consumption in industrial units. Innovative software-based solutions that could provide live information related to consumption of electricity by various machines within industry and suggest inefficient consumption by any particular machine etc. Methods for application of alternative sources of energy at industrial scale in a cost-effective way  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 96. Extracting Hardware Design Diagram parameters from digital copy

Organisation : DIC, Solan

Title : Extracting Hardware Design Diagram parameters from digital copy

Category : Software

Technology : Miscellaneous

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Scanning hardware solutions for digitizing that the design of the products MSMEs does not have any accessible options through which they can preserve their design in digital form for future references. And being the smaller volume of products does not allow them to preserve the physical samples of the products. If customized technology solutions of scanning are available to them. It is possible to develop design database which will complete industry as whole.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 97. Development of Website/App for building customer relationship management in regional language

Organisation : Solan Industrial Association, Solan

Title : Development of Website/App for building customer relationship management in regional language

Category : Software

Technology : Miscellaneous

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 CRM for MSMEs: Msmes have market accessibility constraints and it is difficult to reach the right buyers. Many of MSMEs go through a struggling phase to acquire customers. A Customers relationship management based soft application in regional languages will help MSMEs to create loyal customer base.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 98. Design of system for solving the issue of counterfeit problem.

Organisation : Solan Industrial Association, Solan

Title : Design of system for solving the issue of counterfeit problem.

Category : Software

Technology : Miscellaneous

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 The counterfeit problem (IPR Issues) the traditional msmes are struggling with many factors, one of major factor is that counterfeit products being sold on the name of traditional msmes products such as Kullu Shawl. A mechanism needs to be derived using technologies to ensure the entry barriers and vigilance of such counterfeit products, which holds Graphical Index (GI) which will create positive effects in increasing the share of MSMEs.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 99. Development of Website/ App for improving skills and development of workers

Organisation : DIC, Solan

Title : Development of Website/ App for improving skills and development of workers

Category : Software

Technology : Miscellaneous

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Interactive Audio-Visual training material for soft/ other skills and development of customized self-power projector which could be used in far flung, rural areas. The MSME and KVIC industries have incomparable technical skills, where as they face a problem and various other activities such as quality, planning, marketing, business development, use of computers, customer handling etc. There are many soft skills that need to be trained and for the same interactive training material and hard technology to present the same will strengthen the rural MSMEs.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 100. Development of Website/APP for collection, transporation,disposal and segregation of waste products

Organisation : Nagar Nigam Jaipur, Govt. of Rajasthan

Title : Development of Website/APP for collection, transporation,disposal and segregation of waste products

Category : Software

Technology : Waste Management

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 There is no organized and scientifically planned process for collection, transportation, disposal and segregation of Industrial waste. Disposal and segregation takes places under very unsafe and hazardous condition. Industrial waste is usually directly disposed on low lying area in routine way violating the practices of sanitary land filling. Unscientific dumping and disposal is prone to contamination of ground water and surface water, greenhouse gases, air pollution due to bad odour of the waste and health related problems. To overcome these problems, we wish to find out suitable technologies/mechanism and IT based monitoring for systematic and fool proof industrial waste disposal system.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 103. Online mechanism to monitor the working of embroidery machine

Organisation : Rajdhani Technology

Title : Online mechanism to monitor the working of embroidery machine

Category : Software

Technology : Security & Surveillance

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 The embroidery machines are run almost 24 hours a day and several machines are controlled by a limited number of operators. Due to overworking the operators are sometime over speed the process of embroidery to increase their productivity but this create a problem of frequent breakdowns and lack of quality. To avoid this some vigilant and monitoring system are required to check the malpractices by the operators.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 109. Leather Article Design software (Mobile App) for small entrepreneurs

Organisation : Himalyan Chamber of Commerce

Title : Leather Article Design software (Mobile App) for small entrepreneurs

Category : Software

Technology : Miscellaneous

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 It is always left to individual craft person to physically try proto types for leather articles and then implement accordingly. If a simple design software/mobile app can be developed that will help the small entrepreneurs to come with new, innovative designs for the leather article manufactures.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 115. Mobile App - Software Development for GST

Organisation : Chennai District Small Scale industries Association (CDISSIA)

Title : Mobile App - Software Development for GST

Category : Software

Technology : Miscellaneous

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 After the introduction of GST, MSMEs are facing hardship in filling the returns for GST, e-way bill etc. due to their computer illiteracy. Also, many of the MSMEs are not having computer system and operators to comply with its requirements. It is suggested to develop a user friendly mobile app which can be used by the MSMEs for the purpose.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 116. Software platform for managing payment transactions of Employee

Organisation : Chennai District Small Scale industries Association (CDISSIA)

Title : Software platform for managing payment transactions of Employee

Category : Software

Technology : Miscellaneous

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 All the MSME are facing a tough challenge in maintaining ESI, PF, Pension Accounts for their employees as each of these are being maintained by different departments with different identification number for each employee. The MSMEs also must maintain separate account and make payment separately to each department. It is suggested to have one employee identification number through which all the payments can be made by a single cheque and Employee Identification Number (EIN) should be valid wherever the individual joins  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 121. Identification of vacant land for industrial use

Organisation : Orissa Small Scale Industries Association, Cuttack(OSSIA)

Title : Identification of vacant land for industrial use

Category : Software

Technology : Miscellaneous

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Land is an important factor for setting up of industrial units. Most of the existing and prospective entrepreneurs are facing problems in identifying the vacant land which can be put in use for industrial purposes. Though Government has set up industrial estates/industrial areas /sheds for this purpose, entrepreneurs often face a lot of problem to know about the status of vacant land. To address the issue, an app may be developed to locate the existing vacant land offered by the Government agencies with all information such as area, price, infrastructural facilities  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 123. Forecasting the Demand for Water Pumps

Organisation : MSME-DI, CHENNAI

Title : Forecasting the Demand for Water Pumps

Category : Software

Technology : Smart Communication

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 There are about 1000 MSMEs manufacturing water pumps of various types and capacities in Coimbatore. They manufacture the pumps based on the orders received from their dealers and customers. In this process, they get little time to plan and execute their orders. Hence it is suggested that the data available with the meteorological department about the forecasted groundwater table based on the rain received during the previous season in various regions can be made available to these MSMEs online. This data can be used by the MSMEs to plan their production quantity and capacity of the pumps for the next season.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 124. Solution for Effective Utilization of Coir Raw Material to avoid wastage

Organisation : MSME-DI, CHENNAI

Title : Solution for Effective Utilization of Coir Raw Material to avoid wastage

Category : Software

Technology : Agriculture and Rural Development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 The raw material for coir industry which comes from the coconut farms are spread over various states of India. The production is also seasonal. There is no data available which will provide the availability of raw material sources to the actual users i.e., the coir industries. If a linkage is made with real-time data, the wastage of raw material can be avoided and the cost of production of coir products can be reduced to a large extent.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 125. Developing a user-friendly data bank of MSMEs

Organisation : MSME-DI, CHENNAI

Title : Developing a user-friendly data bank of MSMEs

Category : Software

Technology : Smart Communication

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 While implementing Public Procurement Policy (PPP), it is found that the MSMEs are not aware of the items required by the Public-Sector Enterprises (PSEs). At the same time, PSEs are not aware of the details of MSMEs which are manufacturing the items required by them. Under this scenario, developing of user-friendly databank, which will link the MSMEs and the PSEs is the need of the hour. Also details of SC / ST enterprises can be incorporated as a separate section for ready reference by the PSEs  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 129. Derive at a Productivity Efficiency

Organisation : Goonj

Title : Derive at a Productivity Efficiency

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 PROBLEM : PRODUCTIVITY EFFICIENCY - Goonj team operates from 8 offices Pan India. Obtaining global productivity for any task gets challenging and is a tedious exercise. For a task, number of people is involved in its completion. For eg. Sorting of material to form a distributable kit involves number of people, making of a school bag from re-usable material involves different set of people with requisite skills sets.  
  
Give a solution to get productivity for different types of tasks. System should alert on the areas where there are bottlenecks or a delay impacting productivity. This would enable the organization to bring in continuous improvement in productivity and thus help reach more material for rural development.  
Organization Type  
  
  
 State Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 130. Tracking Of Preventive Maintenance

Organisation : Goa Shipyard Ltd

Title : Tracking Of Preventive Maintenance

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Tracking of Preventive Maintenance of machines, systems, sub-systems, tools & generation of alerts at 6 months prior for AMC renewal & 3 months for any PM. Grouping of related items for a single AMC / Single PM to a supplier. Scheduling of the PM so as not to hurt actual production time lines. Having Analytics built in for spares upkeep, Proper scheduling etc should be the outcome.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 131. MD Message Online

Organisation : Goa Shipyard Ltd

Title : MD Message Online

Category : Software

Technology : Smart Communication

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 MD’s message online to the Company’s Workforce. Without movement of the workforce in a Auditorium, Workforce can hear what is MD’s message to the workforce and they should be able to ask their questions / queries too from their work location. Session should be completely interactive after the address is over and implemented from PC’s kept at different locations. How can this be implemented.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 132. Knowledge Management Portal

Organisation : Goa Shipyard Ltd

Title : Knowledge Management Portal

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Requirement of a Joint Portal for Knowledge Management between DPSU’s. With a near common Product Mix, Production Methods, it becomes imperative that knowledge gained in sorting out different defects, coming up with new ideas is shared and utilized between Defence PSU’s.  
  
While developing a mechanism for this knowledge sharing, adherence to basic principles of ease of use, accessibility from different companies, where to host, maintenance of the site and who would be the Portal Administrator, Catching comments about the Knowledge piece posted, Giving of points as rewards (Scale 1-10) for any knowledge piece should be thought upon and included in scope.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 133. Mail Dashboard

Organisation : Goa Shipyard Ltd

Title : Mail Dashboard

Category : Software

Technology : Smart Communication

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Outgoing Mails & Incoming mails to a particular Mail Id. Within this segregation should be made between internal domain & external domain. Day/Week/Month/Year Wise reports should be available. Top 10 Mail Id’s by No. Of Mail received / sent, Size of mail Boxes, Total size of Attachments sent / received should be made available, Mail Boxes being archived daily, Mail Boxes not being Archived etc. Many more Criteria’s for preparing a Mail Dashboard can be thought of. Dashboard should not be particular Mail Specific. It should work for Lotus Domino, Exchange etc.  
Organization Type  
  
  
 Central Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 134. Wind and Solar energy prediction

Organisation : SkipperSeil

Title : Wind and Solar energy prediction

Category : Software

Technology : Software - Mobile App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Traditional (conventional) sources of power generation are Thermal (Coal), Hydro, Gas and Nuclear, but they are depleting and causing carbon emission. Many countries are taking harsh decision to close down thermal and nuclear. An alternative source, catching the attention of everyone is renewable energy from Solar and wind, which require no fuel and abundantly available according to geographical location.  
  
However, it has its own characteristic and throw upon challenges to integrate into transmission and distribution grid.   
  
Solar Energy  
  
1. Solar Energy is available only during daytime and quantum of power varies according to time in bell shape form. This bell shape will change according to season.  
  
2. Solar Energy is variable in the cloudy weather conditions.  
  
Wind Energy  
  
1. Though available throughout the year. Wind potential varies location to location (that’s why installed in specific areas mostly in remote locations) and season to season.  
  
2. Wind is variable, intermittent and unpredictable during 24 hrs. of the day.  
  
Location wise wind potential makes the task of transmission and distribution utility/grid operation more difficult in absence of local consumption as well as adequate network.  
  
Wind Energy is at peak during monsoon. This is the season when power demand is low. Grid operation has a challenge of handling the excess renewal energy. Grid operation is planned day ahead by taking supply (generator) and demand (utility) commitment. Grid operator is bound to control supply-demand balance to maintain frequency, but it becomes challenging when wind energy is accounted as part of supply in the day ahead planning due to variable and intermittent nature of wind. Grid operator is compelled to back-down conventional sources of generation to minimum level (inefficient operation) for load balancing.  
  
With above background of renewable energy generation, there is need of software solution/modes in the hands of grid operator to predict solar and wind energy generation day ahead as well as during grid operation on hourly basis to guide them for load management.  
  
Benefits: Right solar and wind energy prediction model will enable grid operator to plan dispatches and manage load balancing and efficient operation of power plant.  
Organization Type  
  
  
 State Ministry   
Created At  
20th November , 2018  
Updated At  
 20th November , 2018

# 136. Create an Augmented Reality based 3D Build and Assembly Instruction App for Cardboard Models

Organisation : Plezmo

Title : Create an Augmented Reality based 3D Build and Assembly Instruction App for Cardboard Models

Category : Software

Technology : Software - Mobile App development

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=8E5nxXes69s

#### Problem Statement Details

Description  
 Many games, furniture items or construction kits come with build instructions which are usually represented in 2 dimensional print material or PDFs for consumption via computers. Depending on the nature of the item being built, 2 dimensional instructions are sometimes insufficient. At Plezmo, we develop products to teach computer science, design thinking and IoT fundamentals to School and College students. Part of our product line is a set of models which the users construct from die-cut cardboard sheets. We would like the users to be able to scan a QR code on these cardboard sheets using a phone/tablet App which will present user with Augmented Reality build and assembly instructions of all the models that can be built using that cardboard sheet overlayed on top of the cardboard itself. Users should be able to click the app for next and previous buttons which will allow them to go back and forth between various intermediate steps of assembly. The AR data should be fetched from a cloud backend. The cloud backend should have ability to upload new 3D data for different models along with the intermediate steps etc.  
Organization Type  
  
  
 State Ministry   
Created At  
19th November , 2018  
Updated At  
 19th November , 2018

# 137. Health Index of Power Transformer Fleet in Transmission Utility.

Organisation : SkipperSeil

Title : Health Index of Power Transformer Fleet in Transmission Utility.

Category : Software

Technology : Software - Mobile App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Power Transformer is an important and vital equipment for Power Supply System in a transmission grid. It’s back -down leads to commercial losses and inconvenience to the public.  
  
  
  
• Today, we have a vast transmission network with lakhs of power transformer in the grid. The Power transformer fleet is maintained by each state utility in its domain. The failure rate of transformer has been a matter of concern and it is attributable mainly to the maintenance of the transformer.  
  
  
  
• There are good practices of maintenance- both preventive and predictive.   
  
  
  
Predictive maintenance has gone far ahead in terms of knowledge and technology today in the area of power transformer and we have condition monitoring equipment, both off-line and on-line.  
  
  
  
• It is proved over a period of time that these condition monitoring predictive maintenance has saved million of Rupees for utility and successfully provided uninterrupted power supply.  
  
  
  
• Inspite of having advance off-line and on-line condition monitoring, it is quite challenging for utility to precisely look at each and every transformer. In a way, it is manual assessment. Utility is like to miss the right time intervention to take corrective action based on condition monitoring data recorded in the off-line and on-line monitoring equipment.  
  
  
  
With above background, following software is required:-  
  
  
  
Like a health check in human being on regular basis, one can know the health parameters and recommend the required medicine and remedial actions to overcome the development and worsening of health. The similar concept is proposed for power transformer fleet. The recorded off-line and on-line condition monitoring parameters will be the base to work-out the health index of each transformer. It will be done by assigning a grade depending on the impact of each condition monitoring parameters. The final health index value of each transformer has to be worked out based on all conditions monitoring attributes. We need to develop a software which will have transformer fleet data base and give a health index of each transformer based on off-line and on-line condition monitoring attributes fed to the software on regular basis.  
  
  
  
Benefits: 1) Utility will be able to predict the pre-matured failure of transformer and take corrective action  
  
2) Plan predictive maintenance investment based on health index of each transformer.  
  
3) In totality, it will ensure uninterrupted power supply and save millions of Rupees against replacement of failed transformers.  
Organization Type  
  
  
 State Ministry   
Created At  
17th November , 2018  
Updated At  
 17th November , 2018

# 143. Leveraging Digital Solutions to solve for 10X growth in prescriptions

Organisation : Dr Reddy's Labs

Title : Leveraging Digital Solutions to solve for 10X growth in prescriptions

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Background:  
  
Indian market for pharmaceuticals is predominantly branded generics. Doctors write the brand name of the drug rather than the active ingredient name. (Eg. NISE instead of Nimesulide, or Crocin instead of Paracetamol). Apart from OTC (Over the Counter Drugs) a health care practitioner (Doctor) can only prescribe a medicine. Hence the end consumer is not the decision maker.  
  
To increase revenue all the pharmaceutical companies strive to get mind share of the doctor so that for a particular drug their brand is at the top of the evoked set. It is against the law to provide any direct inducement to the doctor to prescribe a certain brand.  
  
Hence, pharmaceutical companies send Medical Representatives (MR) to the doctor frequently to ensure the doctor is reminded of the brand / Brand Recall. Medical representatives also provide information to the doctors on new product launch, new packaging or other information about the brand. They also inform the doctor about the brand availability at the local pharmacy stores. There are multiple theories on why a doctor prescribes a certain brand. One theory is that doctor prescribes a brand because they trust the quality. Another theory is that they have a certain evoked set of brands and divides the prescriptions arbitrarily based on the brand that comes to their mind. Another theory is that doctor prescribes a brand because of personal working relationship or even in some cases out of sympathy due to general longer waiting time of MRs to meet him/her.  
  
Medical representative gets very small share of the doctor's time. Usually the interaction lasts from 30 seconds to 5 minutes. Medical representatives have to spend a lot of time waiting for the doctor's time or travelling from one clinic/hospital to another. Pharma companies have to employ a huge force of Medical Representatives to ensure reach to doctors. However, this is very expensive to scale up.  
  
   
  
Objective:  
  
To enable 10 X growth in prescriptions with digital technology as an enabler  
  
   
  
Guidance:  
  
• Solution should have measurable key performance indicators (KPI)  
  
• KPI should be clearly linked to the goal of generating prescriptions.  
  
• Solution should be scalable  
  
• No part of Solution should include any direct inducement to the doctor (Eg. Commission or direct material favours)  
  
• You might want to narrow down the problem into sub parts or address all separately. You can address one or more of the following :  
  
• Increasing the effectiveness of the Interaction between doctor and MR  
  
• Enabling the same MR team to reach more doctors  
  
• Enable reach to doctors without MR through digital means (Doctors not getting covered by MR visits)  
  
• At least one example of the experience journey should be provided in the solution where you provide the details of how your solution will change a day in life of the Doctor and a MR etc  
  
• The 10 X growth is kept as a framework so that that you don’t provide an incremental solution which cannot be scaled.  
Organization Type  
  
  
 State Ministry   
Created At  
16th November , 2018  
Updated At  
 16th November , 2018

# 144. Leveraging data to solve for Non-communicable Disease diagnosis and healthcare delivery

Organisation : Dr Reddy's Labs

Title : Leveraging data to solve for Non-communicable Disease diagnosis and healthcare delivery

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Background:  
  
Non-communicable disease continues to be an important public health problem in India, being responsible for a major proportion of mortality and morbidity. Demographic changes, changes in the lifestyle along with increased rates of urbanization are the major reasons responsible for the tilt towards the non-communicable diseases. In India, there is no regular system for collecting data on non-communicable diseases (NCDs) which can be said to be of adequate coverage or quality. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481705/  
  
   
  
While disease burden surveys from the likes of ICMR (Indian Council for Medical Research) do provide directional insights, bottom-up data is certainly more effective in making focused interventions.  
  
   
  
For instance, focused on cardio-vascular and diabetes, identification of prevalence and micro-segments of population at risk is critical to deliver care as these require specialist interventions, not easily available in the rural markets. These conditions also require the patients to be on long term care in terms of continuous parameter evaluation and management of the vital parameters. Better understanding of prevalence through early diagnosis and focused geographical/demographical views help deploy the sparse resources effectively – both by the public and private health institutions.   
  
Objective: How can a combination of UIDAI/Aadhaar, “Low fidelity high frequency” medical devices that can capture recurring diagnostic data at a high frequency come together to enable better data collection? How can advanced data analytics (ML/DL/AI) on top of this data platform help improve 10x, the diagnosis and intervention touch points for non-communicable diseases (NCD) focused on Cardio-Vascular and Diabetes, primarily in Rural/Semi-Urban environments?Guidance:  
  
• Solution should have measurable key performance indicators (KPI)  
  
• KPI should be clearly linked to the goal of improving the early diagnosis of these conditions as well as enable planners give access to the distribution of patient population  
  
• Note: Solution proposed should enable identification of patients to ensure the attributability and accuracy of the data but respect the data privacy of the patients  
  
• You might want to narrow down the problem into sub parts or address all separately. You can address one or more of the following :  
  
• Identify the diagnostic approach for common causes of diabetes and cardio-vascular diseases  
  
• Identify various common use-case data capture environments and leverage that to build data sets  
  
• ML/DL models that can creatively leverage varied data sets of demographics, climate, other conditions to progressively improve the diagnosis as well as disease distribution prediction  
  
• At least one example of the journey should be included in the solution where you provide the details of how your solution will operate/ change a day in life of a patient or a care-professional/planner  
  
• The 10 X for impact is kept as a framework so that that you don’t provide an incremental solution which cannot be scaled  
Organization Type  
  
  
 State Ministry   
Created At  
16th November , 2018  
Updated At  
 16th November , 2018

# 145. Reducing phishing attacks in online/mobile wallets and net banking

Organisation : PayTM

Title : Reducing phishing attacks in online/mobile wallets and net banking

Category : Software

Technology : Security & Surveillance

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Phishing attacks are becoming common. The common man is sometimes duped of hard earned saving due to phishing attacks. Specially vulnerable are old people. They are targeted for their net banking/online wallet PIN or password. The developer should design a system to solve this problem. This problem cannot be solved using only technology. Special focus will have to be put on User Experience (UX) design and User Interface (UI) design. Solutions should keep in mind old users, users who are from villages, users who are not technically savvy and kids. These are specially vulnerable groups.  
Organization Type  
  
  
 Industry Personnel   
Created At  
16th November , 2018  
Updated At  
 16th November , 2018

# 146. Using technology to create a credit profile of e-commerce customers

Organisation : PayTM

Title : Using technology to create a credit profile of e-commerce customers

Category : Software

Technology : Software - Mobile App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 The e-commerce companies find it very difficult to profit since their are lot of return backs and cancellations in e-commerce orders. Also even when orders are properly accepted the customer may want to pay by EMI. Thus their needs to be a system to create a credit and buying profile of a customer. This has to be done in a way that it does not create privacy issue for the customer. The developer should use data from customers and try to use technologies like big data/AI/statistical analysis to create a profile of customer without compromising his or her privacy. Then based on that the system should give delivery benefits and EMI options to the user. So a customer who has negative buying profile will not get Cash on Delivery option. Similarly customers with negative credit profile will not get EMI options.  
Organization Type  
  
  
 Industry Personnel   
Created At  
16th November , 2018  
Updated At  
 16th November , 2018

# 147. Reduce the amount of push notifications require for e-commerce apps

Organisation : PayTM

Title : Reduce the amount of push notifications require for e-commerce apps

Category : Software

Technology : Software - Mobile App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Developer would have to build a solution using Artificial Intelligence or some other mechanism to reduce the amount of push notifications sent by e-commerce apps. Currently push notifications are generally sent based on a fixed schedule or some trigger in most apps. This creates multiple notifications every week and irritates the user. The intent should be to only send notifications when the users intent is there to purchase a particular product. Sending push notifications or emails without any user intent to buy that category of product creates frustration to the user. So only when user has intention to buy something the notifications or emails should. The developer has to use a technical method to find that intent using big data and then send notifications or emails according to that method.  
Organization Type  
  
  
 Industry Personnel   
Created At  
16th November , 2018  
Updated At  
 16th November , 2018

# 149. Managing the personnel training in a simple way

Organisation : Shantha - Sanofi

Title : Managing the personnel training in a simple way

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=7945zoe0G04&featur

#### Problem Statement Details

Description  
 In a GMP manufacturing organization with 2000+ employees, tracking employee training details is one of the key tasks. How to manually track the employee training details and alert the users through an excel spread sheet easily? We are in 21st Century & moving ahead with new trends of technology. Organizations need to keep their workforce up to speed with the latest trends & procedures. How to keep the skill set of the personnel as per the current requirements of GMP?  
Organization Type  
  
  
 Industry Personnel   
Created At  
16th November , 2018  
Updated At  
 16th November , 2018

# 151. Affordable mobile application camera system to monitor residential societies' vehicle activity

Organisation : MixORG

Title : Affordable mobile application camera system to monitor residential societies' vehicle activity

Category : Software

Technology : Software - Mobile App development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Statement: Create an affordable solution of a mobile application and a camera system through image processing to identify and monitor vehicles entering and leaving a residential society passing through the entry/exit gate.  
  
  
  
Description: Many residential society administrations in India face an impending problem of illegal vehicle parking inside their societies and theft of the vehicles. This issue is not bounded to just vehicles, but also add to other security concerns inside the residential societies. Though there are solutions that exist in the market for monitoring through cameras and software system but are expensive and the affordability comes into the question. In this regard, we would like to have an affordable and innovative solution that caters to the Indian market.  
  
  
  
Expectation: For the team choosing this topic, we expect to have a working model (software system) of the solution wherein, when a vehicle passes through a residential society gate, it is identified as a resident / non resident vehicle and a notification to be sent to the vehicle owner and the security via a mobile application. Similarly on exit the vehicle is identified. The application may provide interesting features which improve the overall security of the resident society, convenience to residents and analytics to the security / management of the residential society.   
  
  
  
Note: For implementation students do not need to have a camera but could also rely on the pre recorded video. We will also provide at a later stage 1-2 videos to overcome the requirement of the physical camera.   
  
  
  
Evaluation criteria  
  
- Working demo : 40 points  
  
- Clean and easy to use interface: 30 points  
  
- Innovative features catering to convenience of residents and revenue generation for the application: 30 points  
Organization Type  
  
  
 Industry Personnel   
Created At  
16th November , 2018  
Updated At  
 16th November , 2018

# 153. Multi lingual and voice based conservation interface ( not necessarily bot)

Organisation : Kotak Mahindra Bank

Title : Multi lingual and voice based conservation interface ( not necessarily bot)

Category : Software

Technology : Smart Communication

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 In everyday technological contexts, it is observed that, customers tend to engage more proficiently with a conversational user interface. Such interfaces, if smart, increases the customer satisfaction and improves the user experience. The objective is to design and develop a conversational interface that supports voice channel and accepts multilingual input. The model should leverage latest technological advancements including natural language processing, natural language generation, speech recognition and artificial intelligence. The interface should handle various banking related customer requests and extend other banking services. It should accept user’s voice input, process it and reply with appropriate voice output. The prototype can be a web interface or a mobile application interface.  
Organization Type  
  
  
 State Ministry   
Created At  
16th November , 2018  
Updated At  
 16th November , 2018

# 155. Performance Evaluation and Analysis of a vehicle

Organisation : ARAI

Title : Performance Evaluation and Analysis of a vehicle

Category : Software

Technology : Smart Communication

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=5QVMPZwGde8

#### Problem Statement Details

Description  
 Indian operation patterns and duty cycles are heterogeneous and complex and require huge experimentation to ensure durability and reliability of the vehicles. Robust methods and algorithms need to be developed to evaluate data which can be further used as input for new vehicle design and development.   
  
Participants shall use this data to come up with algorithms for post processing and further performance evaluation. Algorithms shall be generic in nature  
Organization Type  
  
  
 Industry Personnel   
Created At  
15th November , 2018  
Updated At  
 15th November , 2018

# 156. Online Prognostic System of key vehicle component

Organisation : ARAI

Title : Online Prognostic System of key vehicle component

Category : Software

Technology : Smart Vehicles

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=GgfkGahPlxs

#### Problem Statement Details

Description  
 Accidents in heavy commercial vehicles occur mainly due to the failure of Drivetrain system, chassis, brakes and tires. To avoid breakdown of the above mentioned systems, the participants shall develop software algorithms for online prognostics to monitor the health of the above systems. The typical components that can be considered for the demonstration purposes are ‘Drive Shaft, Axle, Brakes and Tires’.  
Organization Type  
  
  
 Industry Personnel   
Created At  
15th November , 2018  
Updated At  
 15th November , 2018

# 157. Ensure safe driving distance in adverse conditions

Organisation : ARAI

Title : Ensure safe driving distance in adverse conditions

Category : Software

Technology : Smart Vehicles

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=YvYlDlGf6QI&featur

#### Problem Statement Details

Description  
 Many of the frontal collisions on highways are due to slow response of drivers and not many systems are in place to warn the driver about an impending frontal collision. In addition to this, during adverse weather conditions the visibility gets affected, which affects the sensor and the system responses. The participants shall develop the system (architecture and software) using cost effective sensors to ensure safety of the host vehicle while driving on highways.  
Organization Type  
  
  
 Industry Personnel   
Created At  
15th November , 2018  
Updated At  
 15th November , 2018

# 158. Person Tracking System

Organisation : HCL TECHNOLOGIES LIMITED

Title : Person Tracking System

Category : Software

Technology : Security & Surveillance

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=n3MVAA9VGzs

#### Problem Statement Details

Description  
 Video surveillance aims to gather information, to prevent crime, protect property, person or object and to inspect the scene of crime. The participants are required to build a pipeline that acquires image from multiple CCTV cameras and carry out face detection, face recognition and tracking of selected individuals.   
  
1.Acquisition :Multiple static CCTV cameras are considered.  
  
2.Face detection & Recognition:  
  
detect the faces and recognize the individuals  
  
3. Multiple Person Tracking: Out of the recognized individuals, track target individuals across multiple cameras.  
  
The pipeline must have list of recognized individuals details, from which the user can select target individuals.  
Organization Type  
  
  
 State Ministry   
Created At  
15th November , 2018  
Updated At  
 15th November , 2018

# 161. Automated Adverse Road Condition Detection

Organisation : ARAI

Title : Automated Adverse Road Condition Detection

Category : Software

Technology : Smart Communication

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=mCnfQnP\_iVA

#### Problem Statement Details

Description  
 The road conditions like pot holes, un marked speed breakers and oil spills shall be detected by a system using cost effective sensors like accelerometers, infra-red sensors, laser sensors, vision based sensors. The output shall be a system architecture and software algorithm for identification of the above road conditions.  
Organization Type  
  
  
 Industry Personnel   
Created At  
15th November , 2018  
Updated At  
 15th November , 2018

# 162. Automatic Stream Changeover for Flow-metering

Organisation : Gail (India) Ltd

Title : Automatic Stream Changeover for Flow-metering

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=I88i57dzE0g

#### Problem Statement Details

Description  
 For measuring very low flow generally a small meter stream is added as standby. A system is required to be devised which checks the flow passing through the MAIN big metering stream and if the flow goes below a pre determined set point, automatically the Low flow stream is taken in line by opening its valves and subsequently closing the main big meter valves. System need to ensure that low flow meter has become online before closing the main meter valves.  
Organization Type  
  
  
 Central Ministry   
Created At  
15th November , 2018  
Updated At  
 15th November , 2018

# 164. AI powered Server Log Management Software

Organisation : Gail (India) Ltd

Title : AI powered Server Log Management Software

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=2JIEn4ZtIg4

#### Problem Statement Details

Description  
 The AI powered software solution should be automatically fetch error logs from servers / applications / databases and categorize/ segregate them based on severity and frequency. There should be dashboards for various types of logs. The solution should have capability to visit Google, Bing and relevant OEM support sites for searching KB for solving the errors mentioned in logs and suggest the relevant link as possible solutions. The target is 95% effectiveness in relevance of links.  
Organization Type  
  
  
 Central Ministry   
Created At  
15th November , 2018  
Updated At  
 15th November , 2018

# 165. Efficient Embedded Search engine for million records in an edge device

Organisation : Schneider Electric

Title : Efficient Embedded Search engine for million records in an edge device

Category : Software

Technology : Smart Communication

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Brief:   
  
• In the era of IoT there are plenty of edge control devices that collect data, aggregate, stores and bridge to the cloud.  
  
• They are also expected to do minimum in premise analytics & decisions, while they aggregate millions of records in a large scale IoT solution.  
  
• An efficient search engine which is embedded in the IoT edge control device would speed up the analytics, improve user’s operational efficiency.  
  
A few considerations:  
  
• Consider the Embedded device is equipped with webserver, webpages for user interactions. It contains onboard embedded memory as well as expandable memory by micro SD card slots.   
  
• Teams can use any popularly known embedded targets for their experiments and demonstrations. Open sources can be reused with duly respecting any license terms applicable. Simulated data or a real data can be used. Data shall be heterogeneous data.   
  
Outcome:  
  
• The expected outcome would be an end to end solution for the aforementioned requirements. It can also be a partial solution specific to the data storage like innovative file systems for edge devices, innovative storage of data records, retrieval of the records or an innovative search engine that finds and populates the relevant data or records as per the user input, innovative and efficient linking of data dynamically within the edge device, etc.  
  
• If there is any specific ideas to improve in the hardware or interfaces to address the above said requirement is also in the scope to produce as final outcome.   
  
   
  
Results:  
  
• A mere integration of well-known existing techniques & existing solutions is not expected. Results should highlight the specific improvement, uniqueness in the outcome compared to the existing state of the art. Practical implementation is preferred as a Proof of Concept (PoC) rather than a theoretical proposal. However, the outcome shall present concept document, theory along with implemented PoC. Results to demonstrate tangible benefits or comparison study wherever applicable.  
Organization Type  
  
  
 Industry Personnel   
Created At  
13th November , 2018  
Updated At  
 13th November , 2018

# 167. Predictive analysis on Medicines & Doctors availability in Government hospitals

Organisation : DELL EMC

Title : Predictive analysis on Medicines & Doctors availability in Government hospitals

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=B3aRkmV8Yvw

#### Problem Statement Details

Description  
 Development of a Healthcare Information system to provide predictive analysis on Medicines availability in Government hospitals & Predictive analysis on increasing the efficiency of the hospital by managing availability of doctors and specialists.  
  
  
  
Description:   
  
Government hospitals provides medicines for the treatment to the patients based on the diagnosis. During the peak time of a disease, some medicines are not available in the hospital. Based on patients historical and current data, system can generate a report on what all medicines should be available in the hospital and in what quantity at particular time and location of the hospital.  
  
  
  
Doctors and specialists availability needs to be managed as per the inflow of patients. Many times patients do not find the required doctor during the peak of a disease or shortage of doctors in a hospital. Based on patient inflow for a particular ailment or disease, historical data and current data, system could generate the requirement of number of doctors required in a hospital on daily basis and also during a peak of a disease. Many times, doctors are not available when patients needs them more, e.g. on weekends, holidays, evenings etc.  
  
  
  
• Target customer – Indian Government healthcare department  
  
• Use Analytics to bring in efficiency in Operational functioning  
  
• Specific use cases under purview of this program:  
  
– Predict Medicine availability in Government hospitals for a given time period (month, quarter etc.)  
  
– Predict number of doctors and specialists required during a given time period (month, quarter etc.)  
  
Features:  
  
• Browser and Map based reporting and analysis on  
  
• Medicine Usage   
  
• Inventory/Costing/Budgeting  
  
• Identify disease  
  
• Disease trending based on diagnosis  
  
• Health Program Implementation Initiative trackers  
  
• Increase the operational efficiency of patient treatment  
  
• Optimize utilization of specialists/experts  
  
• Contexts Search on diagnose, Medicines etc.  
  
• Increase efficiency of treatment/prescripription  
Organization Type  
  
  
 Industry Personnel   
Created At  
12th November , 2018  
Updated At  
 12th November , 2018

# 169. MULTIPLE CITY PAIR SLOT ALLOCATION TO AIRLINES WITH RATIONALIZED BLOCK TIME

Organisation : Min. of Civil Aviation

Title : MULTIPLE CITY PAIR SLOT ALLOCATION TO AIRLINES WITH RATIONALIZED BLOCK TIME

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Presently, the slot allocation process allocates departure slot at an airport. The airline then requests an arrival slot after due consideration of flying time, taxi out time & taxi in time at the destination airport. If the arrival slot is not available, the next available arrival slot is allotted, Based on slot availability, airport may allocate early slot resulting in shortfall in block time, thereby adding an artificial “balloon” to the total flight time.   
  
Slot allocation is done with respect to Gate out Time and Gate in Time for the respective City pair. The variable factors as shown in the last row are adjusted accordingly to meet the requirements of Gate out Time and Gate in Time (Total Block Time). However, the extra padding or buffer time which the airlines add, is based on historic data and not realistic. The airlines would accept the non-corresponding slot times (with their blocks) to allow the flights to be operated. The DGCA also allowed a 10 minute plus/minus window from the standard block time which creates additional variability. Major feature to include:  
  
i. Air traffic congestion and Delays to flights due to early arriving flights   
  
ii. Incorrect or inflated Block times  
  
iii Early departures from origin Airports  
  
iv Airlines accepting incorrect arrival slots at congested airports  
  
v Absence of Penal action for non-adherence of slots  
  
vi Seeking for an innovative solution  
  
The airlines will need to be engaged to disclose the optimal block time for each scheduled operation. Once the current data is obtained, the slot schedule needs to be “gamed” via slot swaps where possible and adjustments where necessary to develop an optimal slot schedule. Additional constraints that need to be considered include airline marketing/competitive issues and arrival/departure slot constraints at each airport. As stated above, the desired outcome is an optimized schedule that achieves the desired performance parameters and rationalize the timings.  
Organization Type  
  
  
 Central Ministry   
Created At  
12th November , 2018  
Updated At  
 12th November , 2018

# 170. Mobile application to get RCS flight seat availability/Fare/Departure/Destination in real time with

Organisation : Min. of Civil Aviation

Title : Mobile application to get RCS flight seat availability/Fare/Departure/Destination in real time with

Category : Software

Technology : Software - Mobile App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Regional connectivity Scheme first flight started on 27th April 2017. Everybody enquires about the availability of seats and fare for these flights. It is of great help to common man if an application developed exclusively for RCS flights taking dynamic feed from Airline operators, Airport System software and third party ticket booking infrastructure. Links for other airport and airline information can also be provided in the next stage of development.  
Organization Type  
  
  
 Central Ministry   
Created At  
12th November , 2018  
Updated At  
 12th November , 2018

# 171. Presenting Waypoints, Navigational Aids and creating ATS Route Network on the Google Earth Platform

Organisation : Min. of Civil Aviation

Title : Presenting Waypoints, Navigational Aids and creating ATS Route Network on the Google Earth Platform

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 The Airports Authority of India is the Air Navigation Service Provide for India. The AAI notifies various ATS routes on which different aircraft navigate for going from departure to destination. These routes are called ATS Routes and are defined using some imaginary point called waypoints and some real physical navigational aids called VORs and NDBs. The coordinates of these waypoints and navigational aids are available in ENR 4.1 and ENR 4.4 sections of a document called AIP (https://aim-india.aai.aero/eaip-v2/index-en-GB.html). Different ATS Routes are published in ENR 3.1 Section of the AIP.  
  
• What we want: These waypoints and navigational aids need to be visible on the Google Earth along connected through lines representing different ATS Routes.   
  
• Example: https://skyvector.com/  
Organization Type  
  
  
 Central Ministry   
Created At  
12th November , 2018  
Updated At  
 12th November , 2018

# 172. Presenting Aerodrome Obstacles around an Aerodrome

Organisation : Min. of Civil Aviation

Title : Presenting Aerodrome Obstacles around an Aerodrome

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 The obstacles around an aerodrome are very critical information for the flight crew. This information is published in AD 2.10 section in AIP.   
  
  
  
The different obstacles around an aerodrome to be placed on the Google Earth Platform along with their information (metadata) tagged.  
  
• Example: https://aisjapan.mlit.go.jp/html/Info/eTOD\_E.html  
Organization Type  
  
  
 Central Ministry   
Created At  
12th November , 2018  
Updated At  
 12th November , 2018

# 176. iVault

Organisation : FIS SOLUTIONS(INDIA)

Title : iVault

Category : Software

Technology : Finance

Complexity : Complex

Youtube link :   
https://www.youtube.com/

#### Problem Statement Details

Description  
 Registration information of property / vehicle is very crucial to identify current and previous ownership. In absence for secure way to validate chain of ownership, same property / vehicle can be fraudulently sold to multiple person. Similarly, we always want to keep records of financial transaction, communication in a way which cannot be manipulated and can be referenced in future. Hence there is need for system which allow creation of data which cannot be manipulated but can be extended  
Organization Type  
  
  
 State Ministry   
Created At  
11th November , 2018  
Updated At  
 11th November , 2018

# 177. Chatbot for eGoverance

Organisation : FIS SOLUTIONS(INDIA)

Title : Chatbot for eGoverance

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :   
https://www.youtube.com/

#### Problem Statement Details

Description  
 Mega bot (chatbot) which provides information related to all government sponsored loans/insurance schemes at single place. This interactive chatbot should be able to pull information from various sources like nabard, rbi, etc and should be able to assist the users with the relevant information.  
Organization Type  
  
  
 State Ministry   
Created At  
11th November , 2018  
Updated At  
 11th November , 2018

# 178. eFramer

Organisation : FIS SOLUTIONS(INDIA)

Title : eFramer

Category : Software

Technology : Agriculture and Rural Development

Complexity : Simple

Youtube link :   
https://www.youtube.com/

#### Problem Statement Details

Description  
 Indian farmers face lot of problems when it comes to buying seeds & fertilizers from authorized channels at the right price. Same applies to selling the farm produce at the right price so that farming becomes profitable occupation. Need of an hour is to build a e-portal for farmers where-in they can buy seeds & fertilizers at the optimal price. This portal should also allow consumers to bid/ask for the farm produce thus eradicating middle man and benefiting both farmers and consumers.  
Organization Type  
  
  
 State Ministry   
Created At  
11th November , 2018  
Updated At  
 11th November , 2018

# 179. Land Real estate Registration

Organisation : FIS SOLUTIONS(INDIA)

Title : Land Real estate Registration

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :   
https://www.youtube.com/

#### Problem Statement Details

Description  
 Land/Real estate registration is corruption prone process which leads to lot of Benami transactions. Government tries it’s best to eradicate the malpractices, but it doesn’t yield fruitful result. One way to solve this problem is to use blockchain technology in order to capture all the Benami transactions related to Land/Real estate deals.  
Organization Type  
  
  
 State Ministry   
Created At  
11th November , 2018  
Updated At  
 11th November , 2018

# 180. Block-chain based certificate validation

Organisation : Greefy Technologies

Title : Block-chain based certificate validation

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=8hXl8ormv7w&featur

#### Problem Statement Details

Description  
 Description:  
  
Storing the school/university/board certificates is a recurring process. For the Organization, verifying the authenticity of the certificates is tedious and cumbersome . The proposed solution will help the institutions to store the certificates in the decentralized way using the block-chain system and give access to any organizations or any institution with the consent of the individual using multi-sign.  
  
What we want: sharable decentralized storage using digital signature and access  
Organization Type  
  
  
 State Ministry   
Created At  
9th November , 2018  
Updated At  
 9th November , 2018

# 181. Text To Speech (TTS) for Indian languages

Organisation : Bharat Electronics Ltd

Title : Text To Speech (TTS) for Indian languages

Category : Software

Technology : Smart Communication

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 TTS is important for many of the government initiatives in Digital India program to help people who cannot read/write or unable to understand the menus of the application.Current TTS solutions are based on English. Local language support is minimal and existing solutions are based on English accent. TTS solutions for Indian languages with an Indian accent should be developed. The solution provided should support multiple Indian/regional languages with local accent having multiple voice selection  
Organization Type  
  
  
 Central Ministry   
Created At  
9th November , 2018  
Updated At  
 9th November , 2018

# 182. DVD Copy Protection

Organisation : Bharat Electronics Ltd

Title : DVD Copy Protection

Category : Software

Technology : Security & Surveillance

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Develop a solution for copy protection of a DVD. It should not be copy-able to any other PC or DVD or media, in any OS platform. Some solutions are available from foreign vendors. But they require connection to Internet during DVD burning, which may not be acceptable in some cases. Hence an indigenous solution that does not require internet connection is required.  
Organization Type  
  
  
 Central Ministry   
Created At  
9th November , 2018  
Updated At  
 9th November , 2018

# 183. Medical Emergency App

Organisation : Dept of Atomic Energy

Title : Medical Emergency App

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Timely response to medical emergencies such as cardiac arrest, snake bite, brain haemorrhage is very important for saving life. It is desirable to develop A Medical Emergency App with location–based information which can provide timely help and also mobilize vital resources such as Ambulance, Doctors, Hospital/Medical Centre etc.  
Organization Type  
  
  
 Central Ministry   
Created At  
8th November , 2018  
Updated At  
 8th November , 2018

# 184. In Surgery Video Annotation

Organisation : Pathirakha Foundation

Title : In Surgery Video Annotation

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=UZGBEY4TQ98

#### Problem Statement Details

Description  
 Surgeons perform endoscopic surgery by looking at the live camera view fitted inside an endoscope. Endoscopes are tiny telescopic tubes inserted into patients’ bodies for performing surgery on target with high precision with minimal collateral damage. Inexperienced surgeons often find it difficult to identify what they are seeing on the camera view during surgery. This is because, the endoscope only shows a magnified planar view of a tiny portion inside the body, without any other visual references. It would be good to have a solution which recognizes the body parts, annotates them and also provides a spatial frame of reference to the surgeon on a live camera view.  
Organization Type  
  
  
 Industry Personnel   
Created At  
7th November , 2018  
Updated At  
 7th November , 2018

# 186. Relative Attractiveness Index of World Markets

Organisation : Aurobindo Pharma

Title : Relative Attractiveness Index of World Markets

Category : Software

Technology : Life Sciences

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 To utilize heuristics & predictive AI to dynamically map graphically multiple parameters using mix of internet scouring and syndicated databases  
  
  
  
Solution  
  
  
  
The AI will utilize dynamic data base to update Country market rating on a select cycle for various pharma formulations products  
Organization Type  
  
  
 Industry Personnel   
Created At  
6th November , 2018  
Updated At  
 6th November , 2018

# 187. Pharma Pull Production System

Organisation : Aurobindo Pharma

Title : Pharma Pull Production System

Category : Software

Technology : Life Sciences

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
    
  
Evolving a pull-production system to help optimize working capital and inventories  
  
   
  
Expected Solution  
  
   
  
A dynamic simulation software which helps better planning of pull system.   
  
It shall provide kanban calculation system for internal flow/movement of material/semi finished and finished products.   
  
It should include visual display system to operating staff on the flow and kanbans to be delivered  
Organization Type  
  
  
 Industry Personnel   
Created At  
6th November , 2018  
Updated At  
 6th November , 2018

# 188. Pharma Logistics - Tracking Vital Parameters

Organisation : Aurobindo Pharma

Title : Pharma Logistics - Tracking Vital Parameters

Category : Software

Technology : Life Sciences

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 To develop a solution to Track & Trace the goods using IOT methodology to track variations in Vital Parameters such as Temperature, Location & Damages for Overseas Shipment   
  
  
  
Expected Solution  
  
  
  
To develop a solution to Track & Trace the goods using IOT methodology to track variations in Vital Parameters such as Temperature, Location & Damages   
  
  
  
 Benefits  
  
   
  
Real-time Temperature Monitoring   
  
Real-time Latitude/ Longitude Monitoring & Identify mis-routes  
Organization Type  
  
  
 Industry Personnel   
Created At  
6th November , 2018  
Updated At  
 6th November , 2018

# 190. Modeling the movement of people in a city

Organisation : KPIT

Title : Modeling the movement of people in a city

Category : Software

Technology : Travel and Tourism

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Efficient and safe public transport system within cities is the need of the hour. This would be possible by bridging the supply-demand gap. To achieve this, accurate tracking/estimation of movement of people is required. Demonstrate a mechanism to accurately capture movement of people within city throughout the day and an algorithm to estimate adequate buses required to match the demand.  
Organization Type  
  
  
 State Ministry   
Created At  
6th November , 2018  
Updated At  
 6th November , 2018

# 193. Mobile based User Fee Payment.

Organisation : Min. of Road Transport

Title : Mobile based User Fee Payment.

Category : Software

Technology : Software - Mobile App development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Mobile phone users are rapidly increasing and use of mobile based digital payment is preferred mode of payment for smart phone users.  
  
  
  
An application may be developed which can be used to make user fee payments at various Government Departments e.g. Road Tax, Insurance, Pollution Test, Toll Tax etc.  
Organization Type  
  
  
 Central Ministry   
Created At  
6th November , 2018  
Updated At  
 6th November , 2018

# 194. Black spot alert on mobile phones of travelers.

Organisation : Min. of Road Transport

Title : Black spot alert on mobile phones of travelers.

Category : Software

Technology : Software - Mobile App development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Road accidental death is a cause of major concern on Highways. Black spot is a place where road traffic accidents have historically been concentrated.  
  
An application may be developed which can capture GIS based location of the user and alert them of nearby black spot on his mobile. Such cautioning can help in reduction of road accidents.  
Organization Type  
  
  
 Central Ministry   
Created At  
6th November , 2018  
Updated At  
 6th November , 2018

# 196. Application for designing of Slope protection measures with relevant geological data & as parameters

Organisation : Min. of Road Transport

Title : Application for designing of Slope protection measures with relevant geological data & as parameters

Category : Software

Technology : Software - Mobile App development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 The Highways are of great importance in hilly regions yet they pose serious threat to commuters in landslide prone areas. The hilly areas face frequent rains and are vulnerable to continuous erosion and landslides.  
  
  
  
Designing slope protection measures requires data on rock properties, angle of repose and angle of dip etc.  An application supported with IOT devices may be developed which can identify/predict the probable slope failures in real time and quantify the cost/risk associated with it thereby helping in design of slope protection measures to address such life threatening vulnerable landslide zones on hill roads.  
Organization Type  
  
  
 Central Ministry   
Created At  
6th November , 2018  
Updated At  
 6th November , 2018

# 204. Brain Image segmentation using machine learning

Organisation : Dept of Atomic Energy

Title : Brain Image segmentation using machine learning

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 The goal of this project is to develop segmentation methods to fragment features of the brain like white matter, tumor etc in 3D, based on ML techniques, which require no human intervention and are robust to the low quality of medical images, with user friendly GUI for showing annotations, developed in Python using open-source ML libraries. Standard data-sets can be used for training, validation and testing purposes.  
Organization Type  
  
  
 Central Ministry   
Created At  
6th November , 2018  
Updated At  
 6th November , 2018

# 205. Malicious webpage detection using machine learning

Organisation : Dept of Atomic Energy

Title : Malicious webpage detection using machine learning

Category : Software

Technology : Security & Surveillance

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 The number of web pages on Internet is growing exponentially every day. The conventional approach of detecting malicious web pages through the blacklists and controlling their access at the organization level is not going to be effective in the near future. It is necessary to apply novel approaches based on Machine learning (ML) to detect malicious web pages. The challenge is to build a binary classifier that will mark web pages as malicious or non-malicious in real-time.  
Organization Type  
  
  
 Central Ministry   
Created At  
6th November , 2018  
Updated At  
 6th November , 2018

# 206. 3D Visual of radiation source using area dose

Organisation : Dept of Atomic Energy

Title : 3D Visual of radiation source using area dose

Category : Software

Technology : Security & Surveillance

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Occupational workers carry wearable sensors for radiation dose data logging, datasets are generated due to movement of workers. A computer code running on GPU/CPU is required which can solve reverse Boltzman Transport Equations (BTE) in offline mode using collected datasets (X,Y,Z,Dose) for given area & do 3D visualization of radiation source in that area. Radiation protection program can take corrective measures for removal of unwanted sources.  
Organization Type  
  
  
 Central Ministry   
Created At  
6th November , 2018  
Updated At  
 6th November , 2018

# 211. Financing platform for Startups

Organisation : DIPP

Title : Financing platform for Startups

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Access to funds is a big roadblock in the growth journey of a Startup. To address this gap, several investment vehicles have been created such as venture funds, fund of funds, etc. to fund Startups. Creating a common platform aggregating all the financing channels for Startups shall remove the bottleneck, ease the application procedure and improve the access to funds. The platform shall also include details for all the financing channels and single application form with application status.  
Organization Type  
  
  
 Central Ministry   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 212. Market place for Startups

Organisation : DIPP

Title : Market place for Startups

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Government proposes to create a market place that will focus on creating marketing opportunities for entrepreneurs to scale their businesses. The marketplace shall comprise of Sellers (Startups) and Buyers (public and private organizations). The key features of such a platform shall include listing of Startups, price discovery of products and ensuring large database of buyer organizations from India and outside  
Organization Type  
  
  
 Central Ministry   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 213. Platform to connect Startups with Corporates

Organisation : DIPP

Title : Platform to connect Startups with Corporates

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Engaging with Startups can be one way for Corporate to get fresh ideas. There is an impending need for creating a platform for Corporate and Startups to connect, exchange their innovative ideas and collaborate to solve wide array of industry problems. The platform shall fulfill following two key objectives:  
  
a. Corporate shall be able to list challenges and source ideas from innovators   
  
b. Innovators shall be able to publish their innovative business ideas and attract interest from corporate  
Organization Type  
  
  
 Central Ministry   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 214. Startup Ecosystem Tracker

Organisation : DIPP

Title : Startup Ecosystem Tracker

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 At present, there is no consolidated register/ database of all Startups across India. A platform may be developed for that purpose. The platform will help in  
  
a. Identifying stakeholders for sourcing information on Startups   
  
b. Dwelling into state startup cells and incubators data   
  
The platform will remove duplicity in Startup data. The collection of this data will help bring in data-driven insights, thereby helping in scale-up of Startups, job creation and economic growth.  
Organization Type  
  
  
 Central Ministry   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 215. Platform for Startups to avail mentor-ship support

Organisation : DIPP

Title : Platform for Startups to avail mentor-ship support

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Many Startups have to deal with Government entities while working on their business ideas. Government officers may be able to provide required mentorship in product design, complying with regulations and guidelines, information and application process Government schemes, connecting them to relevant stakeholders, providing Government market research data, opportunity to pilot, etc The platform will enable a Mentee to connect with the right Professional Mentor from various Central Government Dept.  
Organization Type  
  
  
 Central Ministry   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 216. Grievance Redressal platform for Startups

Organisation : DIPP

Title : Grievance Redressal platform for Startups

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Startups submit grievances to Ministries/ Departments concerned and in certain cases they request DIPP to intervene and resolve the issues. A dedicated platform for Startups to submit their grievances shall be developed to ensure timely resolution. Platform may include following features: a.Submit the grievance for different categories, Departments, etc.  
  
b. DIPP to review the case and submit recommendation c. Case officer & escalation matrix, d: Request Status, resolution period & action taken  
Organization Type  
  
  
 Central Ministry   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 217. Dashboard for monitoring progress of Startup India

Organisation : DIPP

Title : Dashboard for monitoring progress of Startup India

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Dashboard needs to be developed for DIPP to effectively monitor the progress of 19 action points under the Startup India action plan. The data for the dashboard shall be provided by the departments of Monitoring Committee of Startup India. The dashboard should provide: a. Latest updates on all the action points   
  
b.Archives of Minutes of Meetings of monitoring committee  
  
c.Comparison of targets and achievements of the departments d. Notifications on any achievement/ delay e.Monthly status report  
Organization Type  
  
  
 Central Ministry   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 218. Last mile route planning from delivery centers

Organisation : Pepperfry

Title : Last mile route planning from delivery centers

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 In the order fulfilment process, last mile delivery plays a key role. Once the items reach the delivery centres we need to come up with way to most efficiently plan the route to be taken for the delivery which considers - distance, customer availability, traffic status, vehicle availability and capacity and any other factors. Design a solution which takes the input of all orders to be done on a day and creates the most optimised routes and times to be used by delivery fleet for timely delivery.  
Organization Type  
  
  
 State Ministry   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 219. Create a 3D AR mobile buying experience

Organisation : Pepperfry

Title : Create a 3D AR mobile buying experience

Category : Software

Technology : Software - Mobile App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Buying furniture online needs to provide customers a way of experiencing the look and feel of products within the context of their home. Design and implement a mobile experience where they can place 3D objects from Pepperfry’s product catalogue in their home/office setting using AR - visualise the items in a 3D perspective, change/add multiple items and then proceed to checkout. The 3D objects and checkout flow will be provided by Pepperfry  
Organization Type  
  
  
 State Ministry   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 220. Media Plan

Organisation : Ministry of Railways

Title : Media Plan

Category : Software

Technology : Miscellaneous

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 (a)The work of choosing newspapers for every advertisement to be released is done manually.The rate/circulation of newspaper is checked manually from DAVP website, which is laborious and also is prone to error in noting down advertisement rate. (b) It is not feasible to monitor the release of news concerning Ministry of Railways-whether positive or negative due lack of resource/staff. Using digital technology, a system to be devised to inform/give notification in real time or within 12 Hrs.  
Organization Type  
  
  
 Central Ministry   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 221. Platform that lists all Startup related events

Organisation : DIPP

Title : Platform that lists all Startup related events

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Number of Startup networking events are organized across the year by Startup community stakeholders including Government, Investors, colleges,etc. at both national and global level. A dedicated platform is required for tracking and providing repository of such events.   
  
a.It should utilise the Web Crawler for more efficient indexing and ‘web spidering’ of keywords related to startups events. b. Platform shall also allow Startups to apply for these events.  
Organization Type  
  
  
 Central Ministry   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 222. Pediatric Teledermatology

Organisation : IndiaNeoDesigns

Title : Pediatric Teledermatology

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Diagnosing neonatal and pediatric skin conditions does not require face-to-face communication and can be done remotely. There is a need for an App based system which receives images from a phone, allows the "physician" to 1) receive an image 2) tag the diagnosis, 3) automatically store the image for research use and 3) respond to the sender. There is no need to make an automated diagnosis.   
  
Overview: https://drive.google.com/open?id=1ETZMd3tCqieKUjR1PgHGqX6NYTzx07dNPc7Wd1SrVNU  
Organization Type  
  
  
 Industry Personnel   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 223. App for Pediatric Chronic Care

Organisation : IndiaNeoDesigns

Title : App for Pediatric Chronic Care

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Babies born very premature or those with cerebral palsy often have additional needs, for example, a gastric tube. Parents and family members are generally unfamiliar and need a lot of help and assistance. Information about usage and ongoing care is not readily available. There is a need for helping parents navigate the maze of information. Goal: An multilingual educational app (android/iOS) with editable content for parents of children with long-term disability.  
Organization Type  
  
  
 Industry Personnel   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 224. Air filter monitoring

Organisation : Kirloskar Oil Engines

Title : Air filter monitoring

Category : Software

Technology : Miscellaneous

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Modern CRDI engines are equipped with air mass flow sensor and pressure sensor. There is need to get early warning when air filter gets chocked. algorithm has to be developed to provide early signal to operator about air filter choking. It will help is service of vehicle to be carried out at appropriate time.  
Organization Type  
  
  
 State Ministry   
Created At  
5th November , 2018  
Updated At  
 5th November , 2018

# 225. The Mobility Challenge

Organisation : Tata Motors

Title : The Mobility Challenge

Category : Software

Technology : Smart Vehicles

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=JvHtV2Smuu0

#### Problem Statement Details

Description  
 The Challenge is to develop a system to gather anonymized data of people’s movement (no privacy infringement) in a City and then suggest a use-case of how this data can be used to improve any or all of the following attributes of mobility:  
  
1.The need for mobility: Analysis of mass movement across long distances.2.The Efficiency of moving from A to B: 3.The discovery of demand patterns for specific modes of transport.4.The carbon footprint trails.5.The safety of travel.6.Out of Box Insights.  
Organization Type  
  
  
 Industry Personnel   
Created At  
4th November , 2018  
Updated At  
 4th November , 2018

# 227. Intelligent Battery Management

Organisation : Tata Motors

Title : Intelligent Battery Management

Category : Software

Technology : Smart Vehicles

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=HQZKRmubeeE

#### Problem Statement Details

Description  
 Have you ever been left stranded with your vehicle because it just wouldn’t start?  
  
Many a times this is due to the battery of the vehicle, more specifically either its state of charge (SOC) or its state of health (SoH).  
  
The challenge is to devise a user friendly APP based Battery Management Tool through which the user can get the critical information about the SoC as well as the SoH along with the set of actions required to ensure a reliability of starting is maintained.  
Organization Type  
  
  
 Industry Personnel   
Created At  
4th November , 2018  
Updated At  
 4th November , 2018

# 230. SCR efficiency deterioration monitoring from real

Organisation : Kirloskar Oil Engines

Title : SCR efficiency deterioration monitoring from real

Category : Software

Technology : Miscellaneous

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Engine manufacturers are legally responsible ensuring limited deterioration of SCR efficiency over specified life of the engine usage in field. Kirloskar Oil Engines is interested in development of “on line SCR efficiency monitoring system” and communicate the SCR efficiency data. This project should use existing NOX sensors, mass flow, diesel flow and temperature online data available with ECU to monitor SCR efficiency at the operating points in field with some statistical confidence.  
Organization Type  
  
  
 State Ministry   
Created At  
4th November , 2018  
Updated At  
 4th November , 2018

# 231. Track and Trace Supply Chain

Organisation : Hindustan Unilever Ltd

Title : Track and Trace Supply Chain

Category : Software

Technology : Security & Surveillance

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=-J8K9vXUkg4

#### Problem Statement Details

Description  
 Every year Millions of units of consumer products are transported from farms to factories to distributors to retailers and finally the end consumer. To deliver Quality and transparency, Organizations need to be able to trace each product to its origin. The challenge is to design a solution to track each of the millions of units from point of origin to retailer. Traditional bar code based solutions becomes difficult to manage beyond the distributors. The design should need minimal human effort.  
Organization Type  
  
  
 Industry Personnel   
Created At  
4th November , 2018  
Updated At  
 4th November , 2018

# 232. AR/VR Experience for Beauty Products

Organisation : Hindustan Unilever Ltd

Title : AR/VR Experience for Beauty Products

Category : Software

Technology : Software - Mobile App development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=dUoRchsBt28

#### Problem Statement Details

Description  
 Digital and mobile technology is bringing innovative ways to bring customer delight in the retail stores. Augmented reality/Virtual reality can help in heightening customer experience and bring several "wow" moments while they are buying beauty products. It can help the store assistants in selling the right product to the right customer. The challenge is to design frugal AR/VR based solutions which can help the customers and assistants while trying, testing or buying beauty products.  
Organization Type  
  
  
 Industry Personnel   
Created At  
4th November , 2018  
Updated At  
 4th November , 2018

# 233. Digital In-store Merchandising

Organisation : Hindustan Unilever Ltd

Title : Digital In-store Merchandising

Category : Software

Technology : Smart Communication

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=iRvaWHk3A8k

#### Problem Statement Details

Description  
 Retail stores are changing from utility based generic mass market stores to personalized and entertaining shopping experience. We want our products to stand out from the rest in Modern stores by developing innovative digital in-store merchandising concepts. They should generate curiosity, gather attention and bring joy to the consumer. The solutions should need minimal expense on hardware, should be easy to scale, occupy less space.  
Organization Type  
  
  
 Industry Personnel   
Created At  
4th November , 2018  
Updated At  
 4th November , 2018

# 234. Digital Reverse Logistics for Damaged Goods

Organisation : Hindustan Unilever Ltd

Title : Digital Reverse Logistics for Damaged Goods

Category : Software

Technology : Waste Management

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=F\_sQ67NPKM0

#### Problem Statement Details

Description  
 Reverse Logistics is the process of moving goods from their point of consumption or sales for recycling, disposal or reuse. We take back damaged/expired products from about 1.5 million retailers across India. The current process is slow and manual. It takes about 8-12 weeks to process the payment for returned goods. The manual entry makes it difficult to track, audit and analyze the inefficiencies. The Challenge is to design complete digital reverse supply chain for damaged/expired products.  
Organization Type  
  
  
 Industry Personnel   
Created At  
4th November , 2018  
Updated At  
 4th November , 2018

# 236. Fetal Distress Classification based on Cardiotocography

Organisation : IndiaNeoDesigns

Title : Fetal Distress Classification based on Cardiotocography

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=\_ROHhPvQsK0&t=7s

#### Problem Statement Details

Description  
 Fetal distress before and during childbirth indicating that the fetus has been receiving inadequate oxygen. Cardiotocography monitors two vital parameters, i.e Fetal heart rate (FHR) and uterine contractions (UC). These time series data and can be used to detect fetal distress.   
  
  
  
Goal: a system that takes these two time series data as inputs and classifies them as "Distress" and "Normal" Source data: https://physionet.org/physiobank/database/ctu-uhb-ctgdb/  
  
  
  
Methods of processing could include Support Vector Machines/ Principal Component Analysis or any other method of choice that discriminates the best.  
  
Problem: https://drive.google.com/open?id=18oYVdQHq6Jo-9blXCpQwy3g-HBZzErGL  
Organization Type  
  
  
 Industry Personnel   
Created At  
4th November , 2018  
Updated At  
 4th November , 2018

# 237. Referral of Severe Acute Malnourished (SAM) childr

Organisation : IndiaNeoDesigns

Title : Referral of Severe Acute Malnourished (SAM) childr

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Nearly 20 million USD per year is invested to operationalize 1151 Nutrition Rehabilitation Centers (NRCs) under National Health Mission to treat children with Severe Acute Malnutrition (SAM). Inefficiency in detection of SAM, and poor referral and lack of tracking system leads to underutilization of services. A mobile application that will facilitate and track referrals of children with SAM to NRCs and provide real-time bed availability status is required.  
Organization Type  
  
  
 Industry Personnel   
Created At  
4th November , 2018  
Updated At  
 4th November , 2018

# 238. Securing authenticity of Farmer inputs

Organisation : Cyient

Title : Securing authenticity of Farmer inputs

Category : Software

Technology : Agriculture and Rural Development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Farmer inputs such as seeds and chemicals are prone to heavy adultration especially during the peek season resulting into damage of crop and lower yields. Manier times establishing the input traceability, ensuring accountability, and input quality is a big challenge. Source of adultration is untraceable due to complex distribution network and lack of book keeping.  
  
Building an application using blockchain technology can help farming which enhances the traceability of each product.  
Organization Type  
  
  
 Industry Personnel   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 239. Immersive Experience

Organisation : Cyient

Title : Immersive Experience

Category : Software

Technology : Miscellaneous

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Immersive experience is a trend where people interact & perceive real world through digital medium. How great would it be to experience anything digitally before experiencing it in the real world? This can be made possible with either Virtual Reality (VR) or Augmented Reality (AR). The challenge is in creating immersive experience with LiDAR point cloud data. We are looking to create a VR Shell app that can create immersive experience using point cloud data as input.  
Organization Type  
  
  
 Industry Personnel   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 248. Developing a Calibration Curve for Typical Joints

Organisation : Cyient

Title : Developing a Calibration Curve for Typical Joints

Category : Software

Technology : Miscellaneous

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 3D printing of plastics often leads to shrinkage and wrapage of components. Because each component could have a different surface area and volume, the distortion in shape greatly varies between different shapes of components. This poses significant challenge in 3D printing of simple joints and fits that are used to connect two components together.   
  
The challenge is to come up with a calibration curve for a typical joint of two components which will act as a ready reference for engineers  
Organization Type  
  
  
 Industry Personnel   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 249. Citizen feedback on maintenance of road

Organisation : Min. of Road Transport

Title : Citizen feedback on maintenance of road

Category : Software

Technology : Software - Mobile App development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 During travelling on roads, the commuters come across potholes/accidents/landslides/ other hazards that may lead to accidents.  
  
Citizen feedback is a important feature that will enable Govt. authorities to take timely action on road not maintained.   
  
  
  
An application may hence be developed to capture GIS based images of potholes/accidents/landslides/ other hazards by the citizens. The road user will register on the application and upload the captured image of the highway. The Govt. authority will be provided with an option to upload images informing of the action taken in response to the feedback provided. The exercise shall bring a feeling of owning of highways among the citizens.  
Organization Type  
  
  
 Central Ministry   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 250. Stoppage of Work due to rain/snow/floods/landslide

Organisation : Min. of Road Transport

Title : Stoppage of Work due to rain/snow/floods/landslide

Category : Software

Technology : Software - Mobile App development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Contractor raises Extension Of Time request on account of bad weather particularly rains . It becomes a challenging task to verify historical weather condition during the period of no work.  
  
A need has therefore been felt to develop an app where the contractor shall register the start date of a project including geographical locations and record the date wise hindrances resulting into stoppage of work. The app shall verify the weather related hindrances through the information available on the internet and accept or reject the contractor’s claim on this account.  
Organization Type  
  
  
 Central Ministry   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 252. Virtual reality training program

Organisation : Adani Group

Title : Virtual reality training program

Category : Software

Technology : Software - Mobile App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 2) To prepare Virtual Reality (VR) programme which can provide hands on Operation & Maintenance training to Employees in classrooms. E.g. Employee can feel opening the pump / turbine / any equipment while veering VR glasses and step by step learn to do operation & maintenance  
Organization Type  
  
  
 Industry Personnel   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 253. Video Analytics software

Organisation : Adani Group

Title : Video Analytics software

Category : Software

Technology : Miscellaneous

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 To make software which can analyze different types of videos taken by HD camera / Drone / Robotic tools, so that no human intervention is required to analyze data by watching continuous video. It has many applications like security / safety where video can analyze persons who has not with him safety equipment, or software can analyze pipe cracks, etc.  
Organization Type  
  
  
 Industry Personnel   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 254. Using AR/VR to transform Travel Experience!

Organisation : Amadeus Software Labs

Title : Using AR/VR to transform Travel Experience!

Category : Software

Technology : Travel and Tourism

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=Y7fh6P6N3ac

#### Problem Statement Details

Description  
 Over recent times, augmented and virtual reality has become increasingly popular within the travel industry. We would like to know "What are the new and innovative ways, the technologies AR and VR can be helpful for travel industry! Basically, we are inviting new solutions and use cases, how AR/VR can be implemented, so that the travel providers like airlines, airports, hotels and travel agencies can enhance their customer's experiences!  
Organization Type  
  
  
 Industry Personnel   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 255. Overcoming GDPR in Personalization!

Organisation : Amadeus Software Labs

Title : Overcoming GDPR in Personalization!

Category : Software

Technology : Travel and Tourism

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=Y7fh6P6N3ac

#### Problem Statement Details

Description  
 General Data Protection Regulation ("GDPR") is a regulation in EU law within European Union (EU) and the European Economic Area (EEA), to protect all EU citizens from privacy and data breaches. At the same time we have an increasing demand for personalization, like personalized travel offers and suggestions. The problem statement is "How can we treat data differently, maintaining the value of personal taste but being able to target specifically, without exposing the data of the individual?"  
Organization Type  
  
  
 Industry Personnel   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 256. Waste Management

Organisation : Cognizant

Title : Waste Management

Category : Software

Title : Waste Management

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Households generate degradable (food) and non-degradable (plastics, glass etc.) at a massive scale on a daily basis. Degradable waste can be readily made into compost with simple tools while non-degradable waste could be collected and deposited at the regional centers who recycle the material. An on-demand service would be helpful for the public to manage their plastic waste conveniently. This reduces landfills to major extent.  
Organization Type  
  
  
 Industry Personnel   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 257. Longevity

Organisation : Cognizant

Title : Longevity

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Quality of life is on a steady decline with the onset of white collar jobs. The spending power has gone up but at the cost of time for themselves and family. For the first time in the history of India, people are deficient in vitamin D which is freely available leading to many health risks and diseases. This nutrient deficiency not only leads to poor health but also hinders restorative sleep leading to mental illness as well.   
  
A mechanism to encourage people to be active, track users' physical activity and habits tracking and have information handy with real time updates, and being healthy as a community would be a great aspiration.  
Organization Type  
  
  
 Industry Personnel   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 259. Self Learning BOT

Organisation : Cognizant

Title : Self Learning BOT

Category : Software

Technology : Robotics & Drones

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 A BOT with self-learning capability with modern natural language processing or deep learning and transliteration cognitive capabilities. The BOTS should scores answer relevancy over time intelligently and can answer tech or non-tech people differently based on their technical ability  
Organization Type  
  
  
 Industry Personnel   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 260. Avoid Cash Crop Loss

Organisation : Cognizant

Title : Avoid Cash Crop Loss

Category : Software

Technology : Agriculture and Rural Development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 The idea is to help cash crop farmers select the right time to harvest their produce to avoid crop loss due to various diseases and lack of rain. Tamilnadu as a state will stand to gain enormously by using such ML aided applications in advising the farmers on a variety of such issues. The problem statement differs from one state to another and the coverage is also quite wide. Picking one crop for a select set of area and a select set of farmers with selected diseases or crop damage issue could  
Organization Type  
  
  
 Industry Personnel   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 261. Solid Waste/ Waste management cost

Organisation : Cognizant

Title : Solid Waste/ Waste management cost

Category : Software

Technology : Waste Management

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Prevention is better than cure.” Hence reducing waste is the best approach of waste management. Build a digital platform to aggregate secondary resources (used clothes, e-wastes, remaining food etc.) at house-hold level and to facilitate distribution to needy (slum people, beggars etc.) and specific industry. Apart from letting people to keep environment clean, this can be used to educate people about better waste management ; by providing information and insights on waste management  
Organization Type  
  
  
 Industry Personnel   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 262. Live School for World class free education

Organisation : Cognizant

Title : Live School for World class free education

Category : Software

Technology : Agriculture and Rural Development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Connect volunteer teachers (educated housewives, retired persons or similar profile)  
  
and students anywhere in the world through an online and live portal. This will be 24/7 open  
  
school where any student can join the classes on any subject at anytime from anywhere. There  
  
are many orphanages where kids are not getting education and old age homes where educated  
  
citizens are willing to share the knowledge but have no way to share. This application will  
  
provide a platform for many such use cases.  
Organization Type  
  
  
 Industry Personnel   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 263. Knowledge sharing platform for problem solving

Organisation : Min.of Labour & Employmnt

Title : Knowledge sharing platform for problem solving

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 VVGNLI is an apex institution under the MoL&E committed to labour research and training for enhancing the quality of work and work relations in the ever changing work milieu. “Labour” being a Concurrent Subject, States too have Labour Institutes which also operate with near similar objectives. A lot of knowledge and expertise is generated by these institutions on a day to day basis and a common IT platform (interactive) is required to share the same on a real time basis.  
Organization Type  
  
  
 State Ministry   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 264. Eradication of Child Labour using Systems Approach

Organisation : Min.of Labour & Employmnt

Title : Eradication of Child Labour using Systems Approach

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Though prohibited, and having PENCIL Portal, child labour is still rampant in the country in various sectors. An integrated approach across various stakeholders including Central Ministries and State Governments is required through which child labour can be prevented and also the rescued children can be effectively monitored and tracked in the country.  
Organization Type  
  
  
 State Ministry   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 265. Labour Laws compliance while reducing intrusion

Organisation : Min.of Labour & Employmnt

Title : Labour Laws compliance while reducing intrusion

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 There are at present about 44 labour laws for ensuring Decent Work in the country. Mostly, the labour laws are violated by employers to improve competitiveness. Regular / Complaint based Inspections or Self certification system have not been able to address the issue in a balanced way. MoLE has introduced Shram Suvidha Portal for inspection management. A technology based solution for improvement in labour-law compliance while ensuring minimum intrusion into the activities of business is needed.  
Organization Type  
  
  
 State Ministry   
Created At  
2nd November , 2018  
Updated At  
 2nd November , 2018

# 266. Autonomous BOT for Retail

Organisation : Infosys

Title : Autonomous BOT for Retail

Category : Software

Technology : Software - Mobile App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Design and develop an autonomous bot, that could be used in a large retail store to help with the following activities for a customer  
  
•The bot should provide a user interface wherein the customer will enter the product name or say the product name and the bot should determine in which aisle the product is located and travel to that spot. The customer will follow the bot  
  
•The bot should also display promotional information of the stores  
Organization Type  
  
  
 Industry Personnel   
Created At  
1st November , 2018  
Updated At  
 1st November , 2018

# 268. Traffic and accident management

Organisation : Infosys

Title : Traffic and accident management

Category : Software

Technology : Security & Surveillance

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Traffic & Accident management in India is a complex activity given the number of riders & automobiles we have. Using the existing video feeds that come through the cameras positioned on highways, traffic signal & busy roads, detect the following incidents/events 1) Bike riders who are riding without helmets 2) Count of vehicles that are passing through a signal/road at any given point in time. It should allow report generation on various parameters. 3) Ability to read vehicle no & track & search  
Organization Type  
  
  
 Industry Personnel   
Created At  
1st November , 2018  
Updated At  
 1st November , 2018

# 269. Operational maintenance of critical vehicles using AR/VR

Organisation : Ericsson

Title : Operational maintenance of critical vehicles using AR/VR

Category : Software

Technology : Smart Vehicles

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 One of the important aspects of day –to-day life is transportation and there is a huge surge in the number of accidents every year due to improper maintenance or negligence of the vehicle conditions. Human errors during inspections is another major concern. Hence to improve the quality of testing of vehicles , we need to come up with a solution that could detect anomalies in vehicles due to operational negligence.Operational maintenance today are being done based on visual human inspections and manual devices which are prone to errors. We require an Augmented Reality(AR) based application that could improve the quality of testing in vehicles thereby not overlooking the minor displacements.  
  
With the usage of AR applications, one should be able to identify and recognize any damage to physical parts of a vehicle which would enable a personnel to perform operational maintenance. Image recognition could be used to distinguish between damaged parts with respect the initial state.   
  
Input:   
  
Input would be a data set containing labelled images of damaged parts in vehicle and new vehicles of the similar make.  
  
Output:  
  
AR to identify the defective vehicle parts given an image of a vehicle.  
Organization Type  
  
  
 Industry Personnel   
Created At  
1st November , 2018  
Updated At  
 1st November , 2018

# 270. reducing carbon foot-print by optimizing IoT device usage

Organisation : Ericsson

Title : reducing carbon foot-print by optimizing IoT device usage

Category : Software

Technology : Smart Communication

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 In today’s world, the usage of IOT devices in day to day life has increased exponentially. Even though the carbon footprint by a single IOT device is negligible, in a public system where there are millions of sensors/radio devices deployed, this creates a considerable carbon footprint in the neighborhood. With huge amount of sensors installed and sending traffic every millisecond, it becomes important to create a smart and dynamic system that will reduce the amount of carbon footprint by utilizing the characteristics of the devices.   
  
To optimize the carbon footprint of the IOT devices, we need to come up with an innovative solution to dynamically power on and off the devices without compromising on their functionality. For example, let us assume there exists a system to determine the pollution of a city and thousands of sensors are attached to it. We need to find a method to identify the devices to be turned on or off, reducing the cumulative carbon footprint of the devices fulfilling the functionality i.e. Measurement of pollution level in all locations at a given time.  
  
Input: a data set containing latitude-longitude at which sensors are deployed, sensor proximity, carbon-footprint, network topology and other required information Output: a system to determine when and which sensors to be powered on/off dynamically and the total reduction in carbon footprint obtained.  
Organization Type  
  
  
 Industry Personnel   
Created At  
1st November , 2018  
Updated At  
 1st November , 2018

# 271. Geographical profiling of routes based on security and surveillance

Organisation : Ericsson

Title : Geographical profiling of routes based on security and surveillance

Category : Software

Technology : Security & Surveillance

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Security has become an essential aspect of everyday life in India. One of the ways in which we can provide security is by enabling people with vital information on the security aspects for the route they would take during a travel from one place to another. This creates vigilance in traveller and precautionary measures could be taken to prevent any mishap.  
  
In this problem, we are envisioning an application that will suspect any possible security lapse in a location enroute to a destination. A user would use a map which will display all possible areas of red-alert for security from the source to destination.  
  
Given a route map (like google maps) , the security based profiling of various geographical routes traversed could be highlighted as red/yellow/green indicating high, medium and low risks zones. One would be vigilant while travelling through the high risk zones in the map. The profiling could be done based on history of crimes in the area, presence of people, security guards , presence of surveillance cameras, number of vehicles in the area at the given time. Machine learning could be used to learn the features that contribute to the security of a location.  
  
Input:   
  
Input would be a data set containing records of crimes in an area along with statistics like number of surveillance cameras, current traffic conditions etc.  
  
Output:  
  
A map with red, yellow and green patches indicating high, medium and low risk areas given a source to destination path.  
Organization Type  
  
  
 Industry Personnel   
Created At  
1st November , 2018  
Updated At  
 1st November , 2018

# 274. 5. Software for better AV Clarity on Low bandwidth

Organisation : Apollo Hospitals

Title : 5. Software for better AV Clarity on Low bandwidth

Category : Software

Technology : Smart Communication

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=wPXKZ95jqvY&featur

#### Problem Statement Details

Description  
 To design, develop and demonstrate the functioning of a reliable, cost effective, high security, platform to facilitate good video conferencing when the bandwidth drops from 140 to 400 kbps from contracted bandwidth is 512 kbps ( 1:1) . This should be reliable at external temperatures of -25C at heights of 14,000 ft  
Organization Type  
  
  
 Industry Personnel   
Created At  
1st November , 2018  
Updated At  
 1st November , 2018

# 276. 3. Virtual Visits to ICU’s

Organisation : Apollo Hospitals

Title : 3. Virtual Visits to ICU’s

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=99Jj21BY0-M&featur

#### Problem Statement Details

Description  
 :. I-SEE-U: To design, develop and demonstrate the functioning of a reliable, cost effective, high security, platform to facilitate virtual visits to the ICU by authorized relatives/ friends from anywhere at approved times. This Value added Service should be self sustaining thro revenue generation.  
Organization Type  
  
  
 Industry Personnel   
Created At  
1st November , 2018  
Updated At  
 1st November , 2018

# 277. Analytics of Scanned Prescriptions and Notes

Organisation : Hinduja Hospital

Title : Analytics of Scanned Prescriptions and Notes

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=2Kj5fsb9c9c&featur

#### Problem Statement Details

Description  
 The hospital generates a huge amount of medical information about a patient in the form of handwritten medical notes and prescriptions which are scanned and stored as pdf. There is still no way to “read” those scanned documents and extract useful information from them. We need a software solution which can extract useful information from these scanned documents.  
Organization Type  
  
  
 Industry Personnel   
Created At  
1st November , 2018  
Updated At  
 1st November , 2018

# 279. Keyword based Exploration of Library Sources

Organisation : Hinduja Hospital

Title : Keyword based Exploration of Library Sources

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=6q2Km\_6N8hs&t=13s

#### Problem Statement Details

Description  
 DNB students have to complete a dissertation/ thesis on a research topic for which they require library support. The students and their guides face challenges in searching and accessing relevant articles/ papers from the inhouse library. We want a software solution which will offer a platform that will download all the Indian and global references that are relevant to the students’ research topics.  
Organization Type  
  
  
 Industry Personnel   
Created At  
1st November , 2018  
Updated At  
 1st November , 2018

# 280. Washroom Management for the Hospital

Organisation : Hinduja Hospital

Title : Washroom Management for the Hospital

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=XpNIJ4MInUQ&t=7s

#### Problem Statement Details

Description  
 We have 4 facilities accommodating OPD, Diagnostics Lab, IPD wards, offices etc. Each floor has multiple washrooms for patients, staff and visitors. The washrooms are cleaned by the Housekeeping staff on a rota basis. Depending on the location, the time of the day etc., a washroom might get dirty much before the next clean-up is scheduled. We need an interactive solution which uses technology to sense if a washroom is dirty, and alerts Housekeeping and captures and analyses data.  
Organization Type  
  
  
 Industry Personnel   
Created At  
1st November , 2018  
Updated At  
 1st November , 2018

# 281. One Click Research Solution @ Hinduja Hospital (OC

Organisation : Hinduja Hospital

Title : One Click Research Solution @ Hinduja Hospital (OC

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=RHrKQ4lJa7c&featur

#### Problem Statement Details

Description  
 Since 1987 till date almost 1200+ projects have been processed by our Research Department. At present the files and documents of all the projects are recorded or stored in excel sheets or word documents. Research Administration finds it challenging to handle, supervise, monitor and track the progress of the study in the context of defined timelines as the entire project related data are not linked. We need a digital platform that can link all these documents and send emails.  
Organization Type  
  
  
 Industry Personnel   
Created At  
1st November , 2018  
Updated At  
 1st November , 2018

# 284. Distribution of Electric Power for agriculture

Organisation : Ministry of Power

Title : Distribution of Electric Power for agriculture

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Due to lack of guidance and knowledge farmers are unable to manage to utilise the subsidised electric power effectively. Due to which peak demand is very high at a given time subsequently uncalled shutdown in the distribution system.  
Organization Type  
  
  
 Central Ministry   
Created At  
1st November , 2018  
Updated At  
 1st November , 2018

# 285. Feedback of Power supply position

Organisation : Ministry of Power

Title : Feedback of Power supply position

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 • Availability of power supply in rural and urban areas with duration  
  
• Duration of interruption of Power Supply in rural and urban areas  
  
• The above data to be mapped with administrative boundaries like Census Village, District and State for better identification and analysis.  
Organization Type  
  
  
 Central Ministry   
Created At  
1st November , 2018  
Updated At  
 1st November , 2018

# 286. Daily update on construction site progress

Organisation : Everest Industries Ltd

Title : Daily update on construction site progress

Category : Software

Technology : Software - Mobile App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Steel building construction planning and actual on site progress against planning needs to get monitored and analysed on daily basis to identify the risks. Tool is required to update the status of the activities against the planned one on daily basis for effective monitoring of each project.  
Organization Type  
  
  
 State Ministry   
Created At  
31st October , 2018  
Updated At  
 31st October , 2018

# 287. E-recording of off-cut plates from nesting softwar

Organisation : Everest Industries Ltd

Title : E-recording of off-cut plates from nesting softwar

Category : Software

Technology : Miscellaneous

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 During manufacturing of built-up I sections, plate nesting software OmniCAD or 2D – Plus is used to nest the virgin raw material plates. After nesting for a particular project, unutilized balance non-standard shape of plate needs to be stored electronically in CAD form to get utilized in future project. Tool is required to store the shapes and archive it during new nesting planning.  
Organization Type  
  
  
 State Ministry   
Created At  
31st October , 2018  
Updated At  
 31st October , 2018

# 288. Automatic Production Planning & Scheduling of Size

Organisation : Everest Industries Ltd

Title : Automatic Production Planning & Scheduling of Size

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 In order to manufacture products ( size wise, quantity and expected delivery date) as required by the market, company require Makesheet ( Production Plan ) to Schedule and manufacture the products. Company is looking for solution based on market requirement – size-wise product, quantities and expected date of delivery and also the Sheet Machine conditions required to manufacture different size products.  
Organization Type  
  
  
 State Ministry   
Created At  
31st October , 2018  
Updated At  
 31st October , 2018

# 289. Optimum Inventory Control of Machine Spares and Co

Organisation : Everest Industries Ltd

Title : Optimum Inventory Control of Machine Spares and Co

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 Everest Industries Limited, has 12 manufacturing line. For Plant and Machinery, company maintains Spare Parts and consumables at each plant location. To have an Optimum Inventory (Just in Time) of spares and consumables based on consumption rate/pattern and lead time.  
Organization Type  
  
  
 State Ministry   
Created At  
31st October , 2018  
Updated At  
 31st October , 2018

# 290. Predictive analysis of pharmaceutical equipment

Organisation : Emcure Pharmaceutical Ltd

Title : Predictive analysis of pharmaceutical equipment

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 In manufacturing, it is important to have predictive maintenance of equipment with sensors, tracking operating conditions & performance of machines, factory tooling, predicting breakdowns & malfunctions, taking/recommending preventive actions. Tracking parts inventories and other front-end inputs and monitoring product-quality. The failure/errors in the equipment used in the pharmaceutical industries,may impact the overall quality of the drug.  
Organization Type  
  
  
 State Ministry   
Created At  
31st October , 2018  
Updated At  
 31st October , 2018

# 291. Tracking spurious drugs & ensuring brand safety

Organisation : Emcure Pharmaceutical Ltd

Title : Tracking spurious drugs & ensuring brand safety

Category : Software

Technology : Life Sciences

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 The proliferation of counterfeit drugs is a serious concern for all pharmaceutical companies. We need to implement ways to integrate track and trace solutions in production and supply chain. We should be able to identify such spurious drugs which are deliberately or fraudulently mislabeled with respect to identity/source.  
Organization Type  
  
  
 State Ministry   
Created At  
31st October , 2018  
Updated At  
 31st October , 2018

# 292. 1) Expedite first-in-human clinical trials

Organisation : Emcure Pharmaceutical Ltd

Title : 1) Expedite first-in-human clinical trials

Category : Software

Technology : Life Sciences

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 We need to design innovative ways, wherein, the first-in-human (FIH) trials can be expedited. So instead of having multiple phases of clinical trials, there is just one continuous expansion cohort trial. This shouldn’t compromise on the quality of the drug and should include all safety measures to protect patients enrolled in the expansion cohort studies. This process should reduce the development cost and time spent waiting in-between the start and end phases of trials.  
Organization Type  
  
  
 State Ministry   
Created At  
31st October , 2018  
Updated At  
 31st October , 2018

# 299. Re-forestation using "self driven" robotic vehicle

Organisation : VMware Software India Pvt

Title : Re-forestation using "self driven" robotic vehicle

Category : Software

Technology : Robotics & Drones

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 We have vast areas of land with no forest cover, growing trees on this is tedious as these lands are remote and need manual labor and logistics. Even when the land is near by (like land belonging to army is usually very close to their camps, but lies vacant with no trees being planted), investing manual labor in this task is difficult.The proposed solution shall plant seeds and water the plants, monitor plant growth and suggest improvements to increase the green cover  
Organization Type  
  
  
 Industry Personnel   
Created At  
30th October , 2018  
Updated At  
 30th October , 2018

# 301. Talking Fingers

Organisation : VMware Software India Pvt

Title : Talking Fingers

Category : Software

Technology : Software - Mobile App development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 Real time communication with Speech & Hearing Impaired is always a challenge. There are very few interpreters at limited locations. An app which can do real time translation from multiple Indian languages and English to Sign language will help bridge this gap to a large extent. App should run offline without internet.App should be able to feed in words and signs already available in Database.  
Organization Type  
  
  
 Industry Personnel   
Created At  
30th October , 2018  
Updated At  
 30th October , 2018

# 302. A robust algorithm for secure comm messengers

Organisation : Min.of External Affairs

Title : A robust algorithm for secure comm messengers

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 The secure communication messengers are a big hit these days. It provides secure voice, video, and data communication between user. However, there is a need to use a robust encryption algorithm to ensure that messenger provides encrypted communication on any Android or IOS mobile platform. A robust algorithm needs to be designed for indigenously designed messenger which could be used for professional purposes.  
Organization Type  
  
  
 Central Ministry   
Created At  
30th October , 2018  
Updated At  
 30th October , 2018

# 303. Encrypted VOIP using symmetric or asymmetric key

Organisation : Min.of External Affairs

Title : Encrypted VOIP using symmetric or asymmetric key

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 There are many freeware VOIP applications which are being a user. There is a requirement to develop an encrypted VOIP using a symmetric or asymmetric key. The VOIP encryption/decryption software module should be independent of any platform, and it could be integrated with any open standard VOIP protocols.  
Organization Type  
  
  
 Central Ministry   
Created At  
30th October , 2018  
Updated At  
 30th October , 2018

# 304. Application to show process ID and Remote conn.

Organisation : Min.of External Affairs

Title : Application to show process ID and Remote conn.

Category : Software

Technology : Security & Surveillance

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 A GUI based application which should show process ID and the connection which it is making, duly giving the location of each country. It should categorize display into commercial rootkits and others. The other rootkits may be shared with some standard repository like ‘Virustotal.com’ etc., to ascertain whether the process is malicious or safe. Accordingly, real-time white listing and blacklisting database may be built for users.  
Organization Type  
  
  
 Central Ministry   
Created At  
30th October , 2018  
Updated At  
 30th October , 2018

# 305. App for top ten OWASP vulnerabilities scan

Organisation : Min.of External Affairs

Title : App for top ten OWASP vulnerabilities scan

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 There have been increased instances of attack on websites. The commercially-of-the shelve software have good GUI but it can only be operated by users having technical background/expertise in application auditing. There is a requirement to design and develop an application which can scan a website for top ten OWASP vulnerabilities quickly and it should be user-friendly. The auditing tool should be-be GUI based application.  
Organization Type  
  
  
 Central Ministry   
Created At  
30th October , 2018  
Updated At  
 30th October , 2018

# 309. Improve reusability of electronic components across various industries by maintaining industry databases of compatible HW, SW version data

Organisation : NCR

Title : Improve reusability of electronic components across various industries by maintaining industry databases of compatible HW, SW version data

Category : Software

Technology : Miscellaneous

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Currently, the repairs of electronic equipment like phones, refrigerators, TVs etc. is supported by specialized agencies only and general-purpose repair facilities aren’t able to use a wide array of parts available from scrapping of old equipment. If data visualization software can be made available by an industry body to which all participating electronics manufactures can make required data that allows for identifying a part along with compatible hardware/ firmware then this can be used by general-purpose repair agencies and will result in improved re-use of scrapped electronic equipment. For example a common Platform/appln can be developed where technical specifications of components can be shared to make it more usable. We can have facility to upload image and identify components thru them.  
Organization Type  
  
  
 Industry Personnel   
Created At  
30th October , 2018  
Updated At  
 30th October , 2018

# 310. Ensuring effective detection of currency counterfeits across different touch points

Organisation : NCR

Title : Ensuring effective detection of currency counterfeits across different touch points

Category : Software

Technology : Finance

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 Currently, currency notes that are in legal tender are used widely in the economy for different transactions and are accepted at various banking touchpoints like branches, ATMs, banking correspondents etc. as well as commerce touchpoints like retail stores, petrol bunks and for various utility/government services. Some touchpoints are more mature at detecting and eliminating counterfeit notes like note counters in branches and note accepting ATMs, but in a wide array of touchpoints cash handling is manual. If simple software that can be downloaded on a phone can detect counterfeit notes that have been detected at other touchpoints then counterfeit detection can be vastly improved thus reducing the fraud.  
Organization Type  
  
  
 Industry Personnel   
Created At  
30th October , 2018  
Updated At  
 30th October , 2018

# 311. Water borne diseases detection in a particular location

Organisation : Maruti Suzuki India Ltd.

Title : Water borne diseases detection in a particular location

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 '- There should be an aggregation app to check & monitor the outbreak of any water borne diseases  
  
- It should have capability to mark on app - the location of the detected case (making mandatory for test lab)  
  
- This data should be available on cloud & the same can be used by various agencies to take corrective action  
  
- Similar app can be used for various other diseases like dengue, malaria, jaundice, tuberculosis etc...  
Organization Type  
  
  
 Industry Personnel   
Created At  
30th October , 2018  
Updated At  
 30th October , 2018

# 314. Live Digital Traffic Management / Information System using GEO Coordinates

Organisation : Maruti Suzuki India Ltd.

Title : Live Digital Traffic Management / Information System using GEO Coordinates

Category : Software

Technology : Miscellaneous

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 '- There should be a system for Traffic policing using GPS and Traffic light / signal system integration & the same should be capable of:  
  
- Deciding priorities when emergency vehicles are in the lanes  
  
- Adaptive (Red-Green) timings based on traffic in lanes, syncronizing consecutive signals in sequence so as to allow smooth flow of traffic on a particular route  
  
- Traffic voilation detection using GPS, Traffic Signal, CCTV's  
  
- Extraordinary event recognition like traffic, accident, Protests etc.  
  
- Pot holes and speed breaker mapping on maps through satellite imaging thru AI algorithm   
  
- Traffic signal location map  
Organization Type  
  
  
 Industry Personnel   
Created At  
30th October , 2018  
Updated At  
 30th October , 2018

# 315. On the spot (Realtime) Accident information & Insurance dispute resolution

Organisation : Maruti Suzuki India Ltd.

Title : On the spot (Realtime) Accident information & Insurance dispute resolution

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :

#### Problem Statement Details

Description  
 '- There should be a system / portal for gathering of on the spot information during road accidents. This information should include photos of the site, interviews with eyewitnesses, information on injuries and fatalities, reason for accident, speed, road condition on relative basis, etc..  
  
- All this data can go into a central database   
  
- The responsibility for collecting the data could be given either to police, transport authority, ambulance or even ordinary citizens who volunteer for the same  
  
- In the same system, there should also be a provision to submit / exchange Insurance numbers / details in order to settle the dispute if any arising out of accident  
Organization Type  
  
  
 Industry Personnel   
Created At  
30th October , 2018  
Updated At  
 30th October , 2018

# 317. Using AI to improve slotting, picking routes

Organisation : Vanderlande

Title : Using AI to improve slotting, picking routes

Category : Software

Technology : Miscellaneous

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?time\_continue=6&v=nF

#### Problem Statement Details

Description  
 In the future it is expected that robots can do the same activities as the operators in a traditional warehouse. So, one could have a warehouse where both robots and operators are responsible for replenishment and picking tasks.   
  
The assignment is to make a system where we can learn from the operators in the WH (how is the slotting and picking routes operator uses). The idea is to use artificial intelligence, that learns from operators, to develop a strategy which will be used to instruct Robots  
Organization Type  
  
  
 Industry Personnel   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 318. Time and productivity analysis

Organisation : KG Info Systems Pvt Ltd

Title : Time and productivity analysis

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=AhjrECLTzoA&featur

#### Problem Statement Details

Description  
 A tool to capture & calculate the time spent by a resource in various activities ie documentation, coding, SQL, Internet etc..  and store it in a central DB and generate analytics based on this. This is to understand where the resources are spending more time and where organization is loosing time & how to make resources more productive.  
Organization Type  
  
  
 Industry Personnel   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 320. Google search Using (RPA)

Organisation : KG Info Systems Pvt Ltd

Title : Google search Using (RPA)

Category : Software

Technology : Miscellaneous

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=s\_zUdINFC\_c&featur

#### Problem Statement Details

Description  
 When we search for a particular information in Google the result is not ready for consumption and not well formatted. It requires some more effort and time to drill down each link and find out the relevant information. This process needs to automated and results needs to be collated in a table or an excel so that it is easy to consume. When we search a online directory like Just dial, the information is provided in a tabular format & easy to consume.  
  
E.g. Chinese Restaurants in Coimbatore  
Organization Type  
  
  
 Industry Personnel   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 322. Information Management System

Organisation : Min. of Statistics & PI

Title : Information Management System

Category : Software

Technology : Smart Communication

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=WcmMLbk\_esU

#### Problem Statement Details

Description  
 Software can be developed whereby the bulk emails can be automatically sent by selecting number and name of already specified respondents and the whole process may be monitored through logging in the software. Automatic reminder along with an SMS alert can be sent to the divisions from where the information is pending after the stipulated time. The information received should also be consolidated at a place automatically.  
Organization Type  
  
  
 State Ministry   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 323. Crowd sourcing of the works for MPs

Organisation : Min. of Statistics & PI

Title : Crowd sourcing of the works for MPs

Category : Software

Technology : Software - Mobile App development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=yCkOOPUEAdg

#### Problem Statement Details

Description  
 There is a need to develop a digital platform which provides the citizens to list the works that should be recommended by a particular MP or to endorse the listed works of others. The platform should also inform the respective MPs about the works that are listed for his recommendation along with the number of endorsement each work has received. However, it would be discretion of an MP to select the works, out of this crowd sourced works, for recommendation.  
Organization Type  
  
  
 State Ministry   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 324. Preparation of Dashboard for National Accounts

Organisation : Min. of Statistics & PI

Title : Preparation of Dashboard for National Accounts

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=uAOL5S0dFso

#### Problem Statement Details

Description  
 The data for national accounts is available in Excel/ Access formats. This data is organized for crop/item/category level, current/ constant prices and for the years 2011-12 to 2016-17. What we want: We should be able to choose economic activity/current-constant prices/years to see time series of the data and the corresponding graph and drill down to the relevant levels.  
Organization Type  
  
  
 State Ministry   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 325. Automation of Statistical Information Compilation

Organisation : Min. of Statistics & PI

Title : Automation of Statistical Information Compilation

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=iroTr7R7GTc

#### Problem Statement Details

Description  
 DSDD officials have to routinely browse official websites/annual reports of various data source ministries to see whether or not a desired statistical indicator has been published by the concerned ministry. Following problem may be considered:   
  
a. With the usage of machine learning techniques, can this manual browsing of information be automated?   
  
b. With the usage of web scraping tools, can DSDD obtain a notification about upload/hosting of relevant Annual Report/web on its mail-id/mobile number?   
  
c. Along with notification, can a designated report/webpage be downloaded and emailed to DSDD for its necessary action?  
Organization Type  
  
  
 State Ministry   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 326. Cost effective parking solution

Organisation : Manipal Health Enterprise

Title : Cost effective parking solution

Category : Software

Technology : Miscellaneous

Complexity : Complicated

Youtube link :

#### Problem Statement Details

Description  
 A cost effective parking solution to address the problems faced by patients/attendants. The solution that we are looking is from a space optimization angle. There is a parking area with limited space. Once a vehicle enters, the system should be able to calculate its space requirement for parking and put it in a location to get optimal usage.  
Organization Type  
  
  
 Industry Personnel   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 327. Customer support-Automation of ticket creation(RPA

Organisation : KG Info Systems Pvt Ltd

Title : Customer support-Automation of ticket creation(RPA

Category : Software

Technology : Miscellaneous

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=o6wCUvEMNT4&featur

#### Problem Statement Details

Description  
 Description: Eliminate manual intervention in ticket creation  
  
1. Raise a ticket based on the complaint mail   
  
2. If the details are incomplete (e.g. customer id is missing), send a mail to customer asking for missing details.   
  
3. Link the sub sequent responses from the customer to the original ticket  
  
4. Recognize the bounced mails and initiate appropriate action  
  
5. Auto response to template based mails (complaints/queries) ie no free text   
  
6. Multiple bots / parallel processing  
Organization Type  
  
  
 Industry Personnel   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 328. Doctor App

Organisation : Manipal Health Enterprise

Title : Doctor App

Category : Software

Technology : Software - Mobile App development

Complexity : Simple

Youtube link :

#### Problem Statement Details

Description  
 A mobile app for helping doctors plan their appointments, out patient & in patient care, handover of patients in case of leaves for seamless continuity of care  
Organization Type  
  
  
 Industry Personnel   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 329. Customer Support Chat bot with ML

Organisation : KG Info Systems Pvt Ltd

Title : Customer Support Chat bot with ML

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=AxyMto2R-c0&featur

#### Problem Statement Details

Description  
 A chat bot which can interpret the customer complaints or queries, search the DB for resolution and in case new solution found, hand it over to support staff. Based on the conversation b/w customer and staff, update the DB, be prepared to handle similar queries in future.  
Organization Type  
  
  
 Industry Personnel   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 330. Voice/Textual BOT mobile app

Organisation : Dalmia Cement

Title : Voice/Textual BOT mobile app

Category : Software

Technology : Software - Mobile App development

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=XEgTYSs98Ys&featur

#### Problem Statement Details

Description  
 Develop a generic BOT mobile App (Android and ios) that can be used for voice/textual chat interactions with various stake holders in a structured and/or unstructured manner.   
  
E.g. structured – what is my order status? – BOT would respond with the current order status by fetching the same from back end Database.  
  
E.g Unstructured – status - BOT would respond with order status, delivery status, payment status, etc. from back end Database.  
  
Architecture should be open enough to be used with multiple  
Organization Type  
  
  
 State Ministry   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 331. To find out the aptitude of a child

Organisation : Ministry of Culture

Title : To find out the aptitude of a child

Category : Software

Technology : Miscellaneous

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=9ZtUq\_tC1-I&featur

#### Problem Statement Details

Description  
 AI based game application using Gardner’s Theory of Multiple Intelligence.  
Organization Type  
  
  
 Central Ministry   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 332. To measure science literacy/scientific temper

Organisation : Ministry of Culture

Title : To measure science literacy/scientific temper

Category : Software

Technology : Miscellaneous

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=n7hL-gRhAcU&featur

#### Problem Statement Details

Description  
 An App based questionnaire/feedback form with the use of only graphics/pictures/charts without text material could be developed for analysing feedback.  
Organization Type  
  
  
 Central Ministry   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 333. Integrated Health Care App/Portal

Organisation : Thermo Fisher

Title : Integrated Health Care App/Portal

Category : Software

Technology : Life Sciences

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=4CjWDnDVt0Q&featur

#### Problem Statement Details

Description  
 Develop the concept of an integrated Health Care portal with App that helps common man to look for a hospital or a doctor for any consultation needs or undergoing medical procedure.  
  
  
  
A platform that offers service providers approved for offering diagnostic tests at regulated price and quality.  
  
  
  
This portal could be linked to IRDA approved healthcare insurance companies with clear mention of what is included and what is not, Deductibles, etc.  
Organization Type  
  
  
 Industry Personnel   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 334. Health alerts application for a region

Organisation : Mathworks India Pvt Ltd

Title : Health alerts application for a region

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=x00\_XwhmoAw

#### Problem Statement Details

Description  
 INTRODUCTION:  
  
Viral and mosquito borne diseases rise seasonally and regionally. Hygiene is one of the reasons why some regions in India have higher disease rate compared to others. It would be great if an application could collect data, analyze and report to authorities. Here is a problem statement for one such application.  
  
  
  
PROBLEM STATEMENT:  
  
Create a smart phone application that can be used by individuals as well as various medical clinic authorities in each region to report viral and mosquito borne cases registered per day. The application interface can be as simple as type of viral infection reported or optionally collect all the symptoms reported. Location data can be obtained from smart phone and the data can then be sent to MATLAB ThingSpeak channel. Using MATLAB, we can analyze the data reported and create reports that can be sent to regional municipal authorities for necessary actions or posted to the same app where users can view health alerts for their area.  
  
  
  
USES OF APPLICATION:  
  
Applications like this can help in collecting the health information in a region and provide this to NGOs and Government authorities to take necessary steps. For example, an action may be taken to sanitize an area if necessary or send a team of doctors for a camp in the area that reported large number of cases.   
  
Expectation is for problem solvers to create an external mobile app that can accessed by anybody and connect it to send data to ThingSpeak WebService, Analyze and send alerts from ThingSpeak WebService to external App again. Display the charts that ThingSpeak WebService provides.  
  
For more information, please check the below link…  
  
https://www.mathworks.com/help/thingspeak/getting-started-with-thingspeak.html   
  
  
  
MATHWORKS SOFTWARE AND TOOL KITS:  
  
ThingSpeak Free WebService for collecting the data, analyzing and acting on it. It seems to provide few additional toolboxes as AddOns { https://in.mathworks.com/help/thingspeak/matlab-toolbox-access.html }. It depends on kind of visualization and analysis problem solvers will do on data. It may be useful to ensure licensing for tool boxes listed in AddOns is given. For version, it may be useful to provide latest available version.  
  
  
  
FREE SIGNUP FOR THINGSPEAK:  
  
Free accounts offer a fully functional experience on ThingSpeak   
  
https://thingspeak.com/users/sign\_up  
  
  
  
REFERENCES:  
  
[1] https://thingspeak.com/  
  
[2] https://in.mathworks.com/products/thingspeak.html  
  
[3] https://in.mathworks.com/help/thingspeak/getting-started-with-thingspeak.html  
  
[4] https://in.mathworks.com/hardware-support/thingspeak.html  
  
[5] https://in.mathworks.com/help/thingspeak/  
  
  
  
CATEGORY:  
  
Software  
  
  
  
TECHNOLOGY BUCKET:  
  
 Software – Healthcare  
Organization Type  
  
  
 State Ministry   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 335. Aerial Traffic Monitoring using UAVs

Organisation : Mathworks India Pvt Ltd

Title : Aerial Traffic Monitoring using UAVs

Category : Software

Technology : Robotics & Drones

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=LnwuFC\_uWP8

#### Problem Statement Details

Description  
 INTRODUCTION  
  
India is a country with the second largest road network in the world. Out of the total stretch of 5.4 million km of road network, almost 97,991 km is covered by national highways. Challenges in traffic management and congestion cause huge financial, environmental, and physiological costs to the individual and to the government. On an average, a person spends anywhere between 30 minutes to 2 hours of their day commuting, accounting to almost 520 hours a year. It is estimated that the traffic congestion in the four metro cities costs the nation approximately Rs. 1.5 lakh crore (more than the annual Railway budget for this year) {Reference:1,2}.   
  
  
  
This problem statement focuses on developing a specialized aerial solution for automatic aerial analysis of traffic activity in highways and city roads using Unmanned aerial vehicles. The end goal is to explore new possibilities in the field of traffic analysis by its fully automatic calculation of a wide range of traffic parameters such as speed, densities, time, and pollution levels.  
  
  
  
These data can be used for:  
  
o Betterment of road condition: Detecting potholes and inefficient speed breakers  
  
o Detecting traffic anomalies: Identifying root cause of traffic and other emergencies  
  
o Toll-gate efficiency: Prevent choking of traffic at toll gates  
  
o Maintain strict traffic regulations: Identifying traffic violations  
  
o Aid in controlling city pollution levels: detecting and publishing noise and air pollution levels  
  
  
  
Aerial Monitoring using drones overcome the limitations of traditional methods of traffic data collection due to its mobility, complexity, and ability to cover large areas. Airborne sensors (GPS, FPV cameras, gas sensors etc.) provide sufficient amount of data to enable vehicle location and movement monitoring.  
  
  
  
MathWorks tools like the Image Processing, Computer Vision System, Statistics and Machine Learning, Mapping Toolboxes and Hardware Support Packages for drones open door to a variety of applications in these areas {Reference:3-5}.  
  
  
  
MATHWORKS SOFTWARE AND TOOL KITS:  
  
MATLAB R2018b or earlier versions [although some products may have been transitioned (Neural Network Toolbox -> Deep Learning Toolbox)]  
  
MATLAB, Simulink, Computer Vision System Toolbox, Image Processing Toolbox, Signal Processing Toolbox, Statistics and Machine Learning Toolbox, Deep Learning Toolbox   
  
(A comprehensive solution would involve aspects of hardware (drones, IOT), software (vision) and communication (RF) capabilities to work together. From the purpose of feasibility of execution as a Hackathon, we could focus on the software part of the solution.)  
  
  
  
FREE MATLAB TRIAL:  
  
Get started now with your FREE trial  
  
https://in.mathworks.com/campaigns/products/trials.html  
  
  
  
  
  
  
  
REFERENCES:  
  
1] https://www.financialexpress.com/economy/traffic-jam-in-4-metros-costs-more-than-entire-rail-budget-this-city-has-worst-peak-hour-congestion/1146356/  
  
[2] http://www.newindianexpress.com/cities/bengaluru/2018/apr/19/traffic-congestion-costs-bengaluru-rs-38000-crore-annually-1803533.html  
  
[3] https://www.mathworks.com/help/images/detecting-cars-in-a-video-of-traffic.html  
  
[4] https://www.mathworks.com/help/thingspeak/Use-Area-Plot-to-Compare-Traffic-Data-Sets.html  
  
[5] https://www.mathworks.com/matlabcentral/fileexchange/20287-vehicle-traffic-patterns-at-an-intersection-simevents  
  
  
  
CATEGORY:  
  
Hardware + Software  
  
  
  
TECHNOLOGY BUCKET:  
  
 Software – Image processing, computer vision, deep learning  
Organization Type  
  
  
 State Ministry   
Created At  
29th October , 2018  
Updated At  
 29th October , 2018

# 337. Mobile App for Rental Battery

Organisation : Hero Electric Vehicles

Title : Mobile App for Rental Battery

Category : Software

Technology : Smart Vehicles

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=Bd5TUwid5gE&featur

#### Problem Statement Details

Description  
 This requires advance BMS development for locking and unlocking the Lithium ion battery BMS on basis of monthly payment by customer. The battery operating vital parameters to be stored in cloud for later retrieval during maintenance. Participant to develop logic and the embedded system for battery capacity from 1 to 3 KWhr purchase on lease instead of one time investment in lithium battery. This will promote E-mobility solutions over conventional fuel scooters.  
Organization Type  
  
  
 Industry Personnel   
Created At  
25th October , 2018  
Updated At  
 25th October , 2018

# 339. Farm to Fork traceability of Farm Produce

Organisation : MAHYCO

Title : Farm to Fork traceability of Farm Produce

Category : Software

Technology : Agriculture and Rural Development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=cYUlevPZD5Q&featur

#### Problem Statement Details

Description  
 Today, there is a total lack of information on where our food is coming from, who is growing it and what is being applied to it. A farm to fork traceability system can help eliminate the complete lack of transparency that exists starting with the creation of a farmer id and profile, farm record that will contain what chemicals and fertilisers he has used in addition to location details and sale details of every transaction. This will help diagnose the root cause of farm related problems.  
Organization Type  
  
  
 State Ministry   
Created At  
25th October , 2018  
Updated At  
 25th October , 2018

# 340. Crowd sourcing of diseases and pests information

Organisation : MAHYCO

Title : Crowd sourcing of diseases and pests information

Category : Software

Technology : Agriculture and Rural Development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=wJyWm87KRVk&featur

#### Problem Statement Details

Description  
 Indian farmers rely on each other for guidance on the type of seeds to use, diagnosis of pests and diseases as well as their remedies. Timely assessment of problems on the field can improve yields and therefore incomes for the smallest of farmers.The solution envisages using the “wisdom of the crowds”- the creation of a crowd-sourced database which is created for the farmers by the farmers. In the ideal situation farmers will be able to login to see information that other farmers have inputted.  
Organization Type  
  
  
 State Ministry   
Created At  
25th October , 2018  
Updated At  
 25th October , 2018

# 341. AI Solution for Farmers

Organisation : RCF

Title : AI Solution for Farmers

Category : Software

Technology : Agriculture and Rural Development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=C5sOH6oa7Jo&featur

#### Problem Statement Details

Description  
 Food Security is paramount importance to the growing food needs of an ever increasing population. Not having sufficient domestic production of food to meet requirement of 1.25 billion plus and still expanding will put huge burden on Indian economy.  
  
India is a large agricultural hub around the globe and majority of the total population is dependent on the agricultural sector for meeting their demand. Agriculture is the major end-user sector for fertilizers and the demand for fertilizer is growing significantly.  
  
Due to unpredictable monsoon and ever decreasing ground water and un predictable market condition and unregulated market for crop yields putting huge pressure on farmers.  
  
A solution to be developed taking into account following factors  
  
1. Monsoon Prediction  
  
2. Climate conditions  
  
3. Soil condition  
  
4. pests and disease Predictions and use of insecticides   
  
5. Demand for crop  
  
6. Availability of fertilizers and insecticides   
  
7. Irrigated and non-irrigated  
  
Based on available data from multiple sources and market condition, a solution in the form of interactive application is expected from the cream of the society to guide farmers in deciding when and which crop to grow in their fields based on geographical location of their field and market demand / trends using artificial intelligence (AI).  
  
In addition to the above the application should propose the type of fertilizers to be used with doses of fertilizers with timeline/Schedule. The information should be provided in national & local languages.  
Organization Type  
  
  
 Central Ministry   
Created At  
25th October , 2018  
Updated At  
 25th October , 2018

# 342. Dash board/App to monitor STP running status

Organisation : Min. of Water Resources

Title : Dash board/App to monitor STP running status

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=D9GPPFwDJN4&featur

#### Problem Statement Details

Description  
 How to monitor the live status of sewage treatment plant & inlet/outlet water quality monitoring through dash board & App Using • Quantity of treated/untreated water   
  
• Time of open & close STP functions  
Organization Type  
  
  
 Central Ministry   
Created At  
24th October , 2018  
Updated At  
 24th October , 2018

# 344. Distribution of groundwater intensive industries

Organisation : Min. of Water Resources

Title : Distribution of groundwater intensive industries

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=jFGMv92J\_wU&featur

#### Problem Statement Details

Description  
 CGWA provides NOC for extraction of groundwater for Industrial purpose. The data of the Industries and the Quantum of extraction permitted for use by the industries, can be used to map the groundwater intensive Region in the country. The output can be used in comprehensive assessment of the spatial pattern of extraction of groundwater for industrial uses.  
Organization Type  
  
  
 Central Ministry   
Created At  
24th October , 2018  
Updated At  
 24th October , 2018

# 345. Assessment of increase in depth of tube/borewells

Organisation : Min. of Water Resources

Title : Assessment of increase in depth of tube/borewells

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=Exr0\_Nl1RjY&featur

#### Problem Statement Details

Description  
 A website/mobile app to give water level and other related parameters data as input and generating a water level trend with forecast. Using the minor irrigation census data on Block basis for every 5 years, the trend in changes in the depth of the wells can be studied for selected areas. This will be helpful in ground water studies.  
Organization Type  
  
  
 Central Ministry   
Created At  
24th October , 2018  
Updated At  
 24th October , 2018

# 346. Low Cost Digisense Platform: Change Driving Habits

Organisation : Mahindra&Mahindra(FarmEQ)

Title : Low Cost Digisense Platform: Change Driving Habits

Category : Software

Technology : Smart Vehicles

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=sDk9Pn49vgc

#### Problem Statement Details

Description  
 We have very erratic driving patterns on the road and it causes lot of fuel wastage and is a major cause of accidents. A low cost system(under 15$) which can integrate with any car and provide a summary of driving habits of each car owner/driver will help us track usage, plan routes and monitor the health of the vehicle real-time. We can then suggest users to modify their driving habits to control spending on fuel, breakdown alerts and to practice proper road etiquette.  
Organization Type  
  
  
 Industry Personnel   
Created At  
24th October , 2018  
Updated At  
 24th October , 2018

# 347. Parking Spot indicator in vicinity

Organisation : Mahindra&Mahindra(FarmEQ)

Title : Parking Spot indicator in vicinity

Category : Software

Technology : Smart Vehicles

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=-5k45dmKhzg

#### Problem Statement Details

Description  
 India is the world’s fourth largest automobile market with limited parking spots. Ever-growing number of vehicles causes traffic congestion on most streets and roads. Availability of a low cost connected ecosystem will help identify the nearest parking spot when sought. This will resolve issues related to parking as well as reduce traffic jam instances caused due to improper parking situations.  
Organization Type  
  
  
 Industry Personnel   
Created At  
24th October , 2018  
Updated At  
 24th October , 2018

# 349. Automated Visual Inspection of Oily Components

Organisation : SKF India Ltd.

Title : Automated Visual Inspection of Oily Components

Category : Software

Technology : Miscellaneous

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=jhQ7nRLNDfY

#### Problem Statement Details

Description  
 The Bearings Rings & assembled Bearings need to be free from visual defects such as Surface Defects, Nicks, Dents, Black Patches, Uncleaned or Un-honed Surfaces, Laser Marking Missing, Character or faint marking etc. This needs to be prevented from being passed on. An automated visual inspection sys is required to detect these defects under actual production environment & oily conditions. Robot system with correct algorithms & intelligence built-in(for self-learning) also need to be built in.  
Organization Type  
  
  
 State Ministry   
Created At  
23rd October , 2018  
Updated At  
 23rd October , 2018

# 351. Aggregation

Organisation : KISAN FORUM PVT LTD

Title : Aggregation

Category : Software

Technology : Agriculture and Rural Development

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=xN73z1Xoo7o

#### Problem Statement Details

Description  
 The major reason behind farmers being economically challenged is that they do not get the right market price for their produce. Also, the price they pay for inputs considerably higher than the cost at which the inputs are manufactured. There is no application or service in the market which can help farmers come together and buy inputs in a group directly from manufacturers. Or there is no way farmers can form a group and sell their farm produce to FMCGs or other big buyers. An app will help.  
Organization Type  
  
  
 Industry Personnel   
Created At  
23rd October , 2018  
Updated At  
 23rd October , 2018

# 353. Farm input calculation

Organisation : KISAN FORUM PVT LTD

Title : Farm input calculation

Category : Software

Technology : Agriculture and Rural Development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=Y7WSkwc9zkg&featur

#### Problem Statement Details

Description  
 The application of fertilizers and pesticides depends on the soil type, area, crop, pest infestation etc. Most of the farmers do not know the right fertilizer/pesticide to be applied and its correct amount. They end up over-applying the inputs thus causing crop damage, water and soil pollution, high pesticide residue in food.   
  
A mobile application which can identify the correct fertilizer/pesticide and calculate the correct amount to be applied can help farmers overcome this issue.  
Organization Type  
  
  
 Industry Personnel   
Created At  
23rd October , 2018  
Updated At  
 23rd October , 2018

# 354. Smart Farm Diary

Organisation : KISAN FORUM PVT LTD

Title : Smart Farm Diary

Category : Software

Technology : Agriculture and Rural Development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=4vT9aoqMJWk&featur

#### Problem Statement Details

Description  
 Many farmers do not keep account of their expenses. They do not keep a note of expenditure on seed, fertilizer, pesticides, labour, machinery charges, electricity bills etc. If maintained properly, this information can help farmers take many decisions like cutting out unnecessary expenses. If accompanied by various finance options, the smart farm diary can be a very useful tool for farmers.  
Organization Type  
  
  
 Industry Personnel   
Created At  
23rd October , 2018  
Updated At  
 23rd October , 2018

# 357. Chat bots builder

Organisation : Ministry of AYUSH

Title : Chat bots builder

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=uLAaRqhOHoI&featur

#### Problem Statement Details

Description  
 A chat bot is often described as one of the most advanced and promising expressions of interaction between humans and machines. “An intelligent chat bot can guide the concerned parents or patients by understanding and assessing the symptoms that the patient is experiencing and identify the care that they need. With the help of a medical chat bot, patients can receive immediate assistance at the touch of their fingertips.” Solution - Development of Voice assisted Chat bots for AYUSH hospitals.  
Organization Type  
  
  
 Central Ministry   
Created At  
23rd October , 2018  
Updated At  
 23rd October , 2018

# 358. Portal/app for transfer of vital data at low BW

Organisation : Ministry of AYUSH

Title : Portal/app for transfer of vital data at low BW

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=ZM-mIs6Pzs0&featur

#### Problem Statement Details

Description  
 The roles and activities of community health workers (CHWs) are tailored to meet the unique needs of the communities they serve. Critically ill patients (Geriatrics , Low Birth weight babies) needs real time monitoring of vital parameters like Temperature monitoring, Oxygen saturation, Blood pressure, Heart rate, blood sugar level. A app is needed to transfer this data at low band width with video streaming  
Organization Type  
  
  
 Central Ministry   
Created At  
23rd October , 2018  
Updated At  
 23rd October , 2018

# 359. Epidemiological survey app Builder

Organisation : Ministry of AYUSH

Title : Epidemiological survey app Builder

Category : Software

Technology : Software - Mobile App development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=3nnKSki2PhM&featur

#### Problem Statement Details

Description  
 Survey proforma incorporating all the necessary demographic and etiological data etc. may many times extend up to many pages leading to wastage of paper. Sometime, we need apps where there is no net connectivity. An offline APP may be developed so that the recording of data from individual cases may be stored and it may also be having the facility of statistical analysis and consolidating the information in form of charts and graphs.  
Organization Type  
  
  
 Central Ministry   
Created At  
23rd October , 2018  
Updated At  
 23rd October , 2018

# 360. Ayurveda pharma-covigilance – portal (web & app)

Organisation : Ministry of AYUSH

Title : Ayurveda pharma-covigilance – portal (web & app)

Category : Software

Technology : Software - Mobile App development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=Sn4oZ2ZLHgw&featur

#### Problem Statement Details

Description  
 Increasing vigilance towards ASU drug is a matter of concern as well as an opportunity to provide data related to safety of ASU drugs. At present, it is cumbersome and difficult to convey the information obtained from primary PV center to secondary and tertiary centers. This information has to be conveyed to Natioanl PV resource center.  
  
Solution: An APP & web based portal can be developed for reporting of ADRs and data can be sent to nodal center  
Organization Type  
  
  
 Central Ministry   
Created At  
23rd October , 2018  
Updated At  
 23rd October , 2018

# 361. Hospital Finder

Organisation : CDK Global (India)Pvt Ltd

Title : Hospital Finder

Category : Software

Technology : Software - Mobile App development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=Qf8nyCKtsHc

#### Problem Statement Details

Description  
 During medical emergencies, common people always face problems in deciding which hospital they should visit for required treatment. The wander from one hospital to another in search of medical facility, medicines, blood supply, etc. Hospital Finder will solve this problem by allowing people to search for nearby hospitals on the basis of medical treatment, specialist doctors, medicine/blood availability, etc.  
Organization Type  
  
  
 Industry Personnel   
Created At  
23rd October , 2018  
Updated At  
 23rd October , 2018

# 362. Driver alertness detection

Organisation : MindTree

Title : Driver alertness detection

Category : Software

Technology : Smart Vehicles

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=r39Uo2LnV90&featur

#### Problem Statement Details

Description  
 A lot of deaths happening are because of road accidents. So to prevent these accidents, a driver alertness detection system must be made.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 363. Proactive Disaster Detection

Organisation : MindTree

Title : Proactive Disaster Detection

Category : Software

Technology : Miscellaneous

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=wvS5xFcKVVk

#### Problem Statement Details

Description  
 Detect high probability of large scale natural disasters and eventually model the post disaster spread dynamics.  
  
One approach could be to use technology to process the satellite data to predict the likelihood of the disaster which then can be used as a warning tool for monitoring and detecting the disaster.  
  
Also, with the satellite and human generated data, system should model the dynamics of the disaster spread, which will help to manage the disaster efficiently.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 364. Identity (KYC) secure sharing

Organisation : MindTree

Title : Identity (KYC) secure sharing

Category : Software

Technology : Security & Surveillance

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=A5DeMlF6zU8&featur

#### Problem Statement Details

Description  
 Frequent cases of personal data leakage has brought back into focus the security issues with different KYC programs.   
  
A consumer is expected to provide his personal identity for authentication by different agencies, which is known as KYC, but there is no restriction on how much data to be shared with the agencies needing the KYC.  
  
Consumer should have full control over where and how much data is being used by the third parties. We can use a public Blockchain based solution to overcome all these.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 366. APP BASED VALUATION REPORTS OF MOBILE ASSETS

Organisation : AICHAPPRAISERS AUCTIONERS

Title : APP BASED VALUATION REPORTS OF MOBILE ASSETS

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=XojReovnzes&list=LLm51RuYwWBRBLM2A9btjpyg

#### Problem Statement Details

Description  
 We want to automate through mobile app our valuation reports containing photographs with digital signature eliminating hard copies. Our system is semi automatic and currently we are providing PDF links. Right from the site to the final point we wish to completely automate inspection process. The reports was containing algorithms to cost to the bidder. a link of the same is given here http://aichappraisers.com/valuationreports/SEP 2018/WB/5001786612.pdf  
Organization Type  
  
  
 State Ministry   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 368. Packaging format and design optimizer

Organisation : ITC Limited

Title : Packaging format and design optimizer

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=miscGsDFmE0

#### Problem Statement Details

Description  
 TITLE: Packaging format and design optimizer for packaged food products  
  
  
  
1. BACKGROUND: The packaging format design is currently based on trial and error for most of the packaged food products. The packaging format decides the damage any food product will undergo, especially during transit and handling. Especially for biscuits, product breakage is a prime concern, and any packing format is decided retrospectively based on the damage endured during transits (mostly by evaluating breakage). A simulation based model would solve this problem, just like any mechanical design, if packaging design can be tested for relative preference.   
  
  
  
2. PROBLEM DESCRIPTION: Packaging format for food products need to be designed based on a simulation model. This model should involve a multi body dynamics study to evaluate the maximum forces the final packaged food will be subject to during transit and handling. A simulation has to be done basis forces that products undergo during the journey in the supply chain.   
  
  
  
3. PROBLEM STATEMENT: To build a computer simulation model for optimizing packaging design for a given packaged food  
  
  
  
4. PROJECT DELIVERABLES:  
  
(a) A comprehensive stimulation model which will help in designing the optimized packaging format.  
  
(b) The simulator should identify and recommend the areas that need to be strengthened for a given load distribution so as to minimize the effects on the product.   
  
(c) The model has to be made modular taking inputs from different aspects of transit in the supply chain and should be able to be generalized to any product.   
  
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Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 369. Online Inspection of Packed Cases

Organisation : ITC Limited

Title : Online Inspection of Packed Cases

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=vvIBcEfss9A

#### Problem Statement Details

Description  
 TITLE: Leveraging Artificial Intelligence & Image Processing for Online Inspection of Packed Cases  
  
  
  
1.BACKGROUND: Leaves of a crop are threshed and are packed into 200 Kg cases. 10% of these packed cases are later inspected for conformity to the master case approved by the customer in terms of Color, Ripeness and Uniformity. The quality inspection processes are manually operated and rely on the judgmental experience of the experts. The judgment is heavily driven by personal, business and environmental factors and is highly subjective.  
  
  
  
  
  
2.PROBLEM DESCRIPTION: Inspection is a crucial activity to ensure customer satisfaction. Although it doesn’t eliminate the defects in the product, it helps identify the defective products before they are dispatched to the customer. The limitations with the existing inspection process is multi-fold.  
  
  
  
• While Customer expects all the cases to be inspected, due to space and man-power constraints, today, the business is able to achieve only 10% inspection.   
  
• As the inspection process happens one day after the cases are processed, due to limitations with Expert availability, real-time corrective actions in the factory in case of deviations in product quality gets difficult  
  
• Due to human involvement in the visual inspection, there is inherent subjectivity involved in the process  
  
  
  
3. PROBLEM STATEMENT: To automate in real-time, the packed case inspection using Machine Learning and Image Processing techniques and enhancing the objectivity of the inspection process.   
  
  
  
4. PROJECT DELIVERABLES:  
  
(a) To develop 3 separate algorithms which imitate Color, Ripeness and Uniformity inspection while keeping the processing time for each of the algorithms under 1 minute each  
  
(b) The developed Algorithms to be generic of the grade type for all Color, Ripeness and Uniformity dimensions  
  
(c) To identify patterns for Color, Ripeness & Uniformity inspection, if any by understanding the way Algorithm is functioning  
  
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Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 370. Collective Threat Intelligence Framework

Organisation : Quick Heal

Title : Collective Threat Intelligence Framework

Category : Software

Technology : Security & Surveillance

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=ly\_0WjDvdD8

#### Problem Statement Details

Description  
 Adopting a collaborative approach to sharing the threat intelligence has its own benefits. The volume of threat incidences along with sophistication of techniques used demands implementation of effective protective system. You always see only view through one angle and no one has the full picture.  
  
Ability to find needle in a haystack gives the notion of today's threat landscape.  
  
The system should build capability of collective threat intelligence to prioritize, focus and detect threats.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 371. Mechanism to save medines from getting wasted

Organisation : MindTree

Title : Mechanism to save medines from getting wasted

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=QWQrqwKTWXE&featur

#### Problem Statement Details

Description  
 Frequently the medicines remain unused with people. In those cases medicines do get wasted.   
  
The proposal brings in usage of technology to make the medicines reusable in seamless and hassle free manner.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 374. TechAgri

Organisation : MindTree

Title : TechAgri

Category : Software

Technology : Agriculture and Rural Development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=VYhR2hU6HD8

#### Problem Statement Details

Description  
 Our farmers are well too behind in using technologies and advanced methodologies to grow the crops. Every year we see that the farmers are committing suicide due to the bad crop (various reasons), or bad rates for the crops and loan sharks. What if there is a platform for the farmers, which is easy to understand and use, to enable them to utilize the power of technology in their farming?  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 375. High Performance Network Intrusion Detection Engine

Organisation : Quick Heal

Title : High Performance Network Intrusion Detection Engine

Category : Software

Technology : Security & Surveillance

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=ccIAkrJ96Jw

#### Problem Statement Details

Description  
 Develop a network intrusion detection system with high network throughput.  
  
  
  
The system should scan, classify and monitor the network traffic in realtime without affecting the network throughput.  
  
  
  
Following are the features  
  
- Real time traffic analysis  
  
- Protocol analysis  
  
- Content searching  
  
- Detect variety of attacks and probes  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 376. Invoice Processing using RPA

Organisation : KG Info Systems Pvt Ltd

Title : Invoice Processing using RPA

Category : Software

Technology : Miscellaneous

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=2\_8R91ijxvY&featur

#### Problem Statement Details

Description  
 One of our Client processes approximately 1500 invoices per day received from 250 surveyors in 15 different formats. All those are of pre-defined format containing no hand written text. Each document spans across approximately 3 pages. it can be,  
  
• mobile captured images   
  
• Scanned PDFs.  
  
Data retrieved from the invoices (including item name, etc.)are updated into CRM application. However, it refers to items with names which is different from the one specified in invoice. (For E.g., Invoice Item Name: Front Wheel, CRM Item Name: F.Wheel). Design and propose an automation solution, which will automate the above business process, considering that all the invoices are made available in a pre-defined File Server.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 377. Efficient Farming

Organisation : MindTree

Title : Efficient Farming

Category : Software

Technology : Agriculture and Rural Development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=ox-Wjv5U-rU&featur

#### Problem Statement Details

Description  
 A mobile application that the farmers can use to hire tractors as well as other mechanizations at a nominal amount all using their mobile phones . This would not only help them avoid manual labor but can be also be considered as an important step to encourage this profession.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 378. Smart and Dynamic Time Table Management System

Organisation : SSEPL Skills Pvt Ltd.

Title : Smart and Dynamic Time Table Management System

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :   
https://www.youtube.com/results?search\_query=https

#### Problem Statement Details

Description  
 This platform would be generating time table for a college/school/institution based on the input of trainer’s skills, trainers load hour, session duration, no. of days of training. This platform would generate the time table in the start of academic session based on the provided input. Dynamic nature of this platform would be in adjusting the vacant classes in case of trainers’ absence due to any reason. This platform should automatically allocate the free classes to appropriate trainer of same  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 379. Automated system for Material Return from Customer

Organisation : SKF India Ltd.

Title : Automated system for Material Return from Customer

Category : Software

Technology : Software - Web App development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=5tPWHTKjjqM

#### Problem Statement Details

Description  
 In case of excess supply, wrong/damaged deliveries to end customers, SKF customer service team returns the product back to regional warehouse irrespective of condition of material. Hence, sometimes we (India Distribution Centre) end up receiving damaged stocks even after an ok Proof of Delivery which results in blocked stocks and we end up scrapping them leading to loss. A solution can be developed that a proper justification for return is mentioned and right decision on return of goods is taken  
Organization Type  
  
  
 State Ministry   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 383. Drone Doctors

Organisation : ITC Limited

Title : Drone Doctors

Category : Software

Technology : Robotics & Drones

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=xjY58OAXUTs

#### Problem Statement Details

Description  
 TITLE: "Drone Doctors: Deep Learning of plant topography for predictive / prescriptive analysis against pest and diseases".  
  
  
  
BACKGROUND: Crop losses owing to pest & diseases are inherent in Indian agriculture with the annual loss of 15-25% of productivity. Pest & diseases are complex, crop/region specific, seasonal, epidemic/endemic, which require integrated approaches to manage the loss. Due to the level of complexity, diagnosis for preventive measures are challenging, particularly our inability to (fore)see the pest/disease occurrence and their life cycle, while the level of difficulty raises with the size of land holdings. Due to the poor visibility of pest and disease occurrences, our ability to integrate and use the data for preventive/prescriptive measures has been the challenge leading to continuous productivity loss.  
  
  
  
PROBLEM DESCRIPTION: Crop loss is generally diagnosed by the symptoms developed by pest and diseases, while manual diagnosis has a very limited scope in identifying the damaged plant parts, while recognizing the pattern of pest/disease distribution almost close to impossible in large area. Drone based scanning the large area using both visible and near-infrared light, could help track changes in plants at large scale and identify the distribution pattern very precisely. Further, an artificial intelligence (AI) driven software could process the images; integrate the existing knowledge and develop the solutions in real-time. In addition, such approach could also open the scope of predictive analysis to execute automate alert to the farmers, potentially improve the crop productivity to more than 20%.  
  
  
  
PROBLEM STATEMENT: To build a custom drone and integrated software with AI for predictive/prescriptive model against pest and diseases in crop plants.  
  
  
  
The proposed requirements are as follows,  
  
A: HARDWARE  
  
1. Drone integrated with IR lenses  
  
2. Communication device for data transmission to cloud  
  
  
  
B. SOFTWARE  
  
1. “Intelligent” Software that process the digital images; extract the binaries; categorize them to diagonise the biotic stress; integrate with existing knowledge; execute the predictive / prescriptive analysis and generate alerts for communication.  
  
2. Cloud environment with management dashboard  
  
  
  
PROJECT DELIVERABLES:  
  
1. An aerial survey and data collection system, fully functional with visible and IR lenses.   
  
2. Managed communication of the images/data to the cloud.  
  
3. AI driven Software – fully functional for predictive and prescriptive analytics  
  
4. Alert system for users (including farmers) in various formats including RSS feeds (for news channels) and mobile applications.  
  
  
  
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Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 384. Patient Case Similarity

Organisation : ezDI

Title : Patient Case Similarity

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=skDcDRBdfNI

#### Problem Statement Details

Description  
 The objective of patient case similarity is to identify similar patients based on their medical reports. Identification of similar patient cases be useful for improving patient outcome, for treatment or drug recommendation to a new patient, prediction of clinical outcome, clinical decision support, research on those cases.  
  
  
  
Task: Applying machine learning algorithms to find similar patient cases from given dataset. You can refer youtube link and documentations attached to it for more details.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 385. Inconsistency Detection in Medical Annotation

Organisation : ezDI

Title : Inconsistency Detection in Medical Annotation

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=vx4PNSpE1wg

#### Problem Statement Details

Description  
 Text in clinical documents is annotated to tag the words or phrases as problems, diagnoses, procedures, drugs etc and identify the relationship between them. Semantically similar words can be annotated differently by different annotators due to ambiguity in understanding the guidelines, incomplete experience or human errors. Identifying inconsistencies can help in improving the data quality You need to develop a tool to display these similar entities which have different patterns of annotations.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 386. India Vs Pollution

Organisation : CDK Global (India)Pvt Ltd

Title : India Vs Pollution

Category : Software

Technology : Miscellaneous

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=n8S-ewKNSbk

#### Problem Statement Details

Description  
 Every day we come across several sources of pollution, polluting the very basics of our lives- Rivers, Land, Air and Noise. We know nothing about who/where to report it and how. We suggest an Innovative way to identify the sources of pollution in your area, get it prioritized through people votes, escalate it to the concerned authorities, keep a track of the progress and get notified of the actions taken. It will provide an End-2-End tool to battle pollution democratically partnering with Govt.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 387. Ambulance Services

Organisation : CDK Global (India)Pvt Ltd

Title : Ambulance Services

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=ui4o6zOdA7k

#### Problem Statement Details

Description  
 Ambulance services are important for Health & Medical facilities. Requirement is to build a mobile app similar to Ola / Uber cab services. But it will be for Ambulance services. This app will have Ambulance driver’s register their availability and location. Both Executive at Emergency Helpline and User’s on the other hand on App’s Client interface will book an ambulance.   
  
This will promise a fast and reliable ambulance service in case of emergency.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 388. Birth/Death Registration Integration With Services

Organisation : CDK Global (India)Pvt Ltd

Title : Birth/Death Registration Integration With Services

Category : Software

Technology : Software - Mobile App development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=QDZz3Yq7YTM&t=24s

#### Problem Statement Details

Description  
 There are different services which are linked to Birth and Death of an individual. If these services are integrated together it will help individuals. Maternity Nursing home register’s child birth to Municipal Office Then Parent / guardian can one time enter the name of their child and get a print of Birth Certificate after few days. No need to visit MO. In case of Death registration at MO then build a system which will notify all tear down services to update death status of the individual.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 389. Common Corporate Social Responsibility(CSR) Portal

Organisation : CDK Global (India)Pvt Ltd

Title : Common Corporate Social Responsibility(CSR) Portal

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?v=09hpnAUmtuI&t=20s

#### Problem Statement Details

Description  
 Currently most organisation have their own CSR activities and perform social events separately.  
  
Due to lack of resources and budgets, it limits their ability to perform these activities on larger scale or remote areas. Also other corporates may not be aware of such events, so that they can participate as well.  
  
So idea is to develop an organised Common CSR portal where different corporates or individuals can come together and collectively provide valuable service to society.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 390. Effectively writing YARA rules to detect malwares

Organisation : Quick Heal

Title : Effectively writing YARA rules to detect malwares

Category : Software

Technology : Security & Surveillance

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=GxLPIqtRgIE

#### Problem Statement Details

Description  
 • Search engine for YARA signature pattern selection.  
  
• Automatically generating YARA rules/signatures that cover a specific set of files.  
  
• Short scanning time for YARA signatures on large amount of data (clean set) for identifying the best signature candidate.  
  
• The generated YARA rules should be generic i.e. single signature should cover multiple malware samples.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 391. Secure distributed transaction recording system

Organisation : Hughes Systique Pvt Ltd

Title : Secure distributed transaction recording system

Category : Software

Technology : Security & Surveillance

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=1wlQyFhD\_dU&featur

#### Problem Statement Details

Description  
 Design a system by which we can record and make visible/non-falsifiable/non-repudiable the different transactions between a common citizen and a govt. department for getting and managing a particular form of license/permit. For a specific example, we consider the driving permit. The system should be able to track the different transactions starting from getting the permit (retail/commercial), renewal, recording of traffic rule violations, and possibly, revocation/suspension  
Organization Type  
  
  
 State Ministry   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 392. Locate faults in Power Distribution Networks

Organisation : ABB GIS Pvt Ltd

Title : Locate faults in Power Distribution Networks

Category : Software

Technology : Miscellaneous

Complexity : Complex

Youtube link :   
https://www.youtube.com/na

#### Problem Statement Details

Description  
 Over the time, cities have built the power distribution asset in phases with varied product technologies. At the time of faults in the physical infrastructure, the distribution utilities take huge time to identify and pin point the fault in the physical infrastructure (especially the cable faults, which is mix of overhead and underground infra). Also, faults in networks are catered to only after they occur. A low cost prediction solution will help in better planning for ad-hoc maintenance.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 393. Big Data challenges for e-Mobility- Smart City

Organisation : ABB GIS Pvt Ltd

Title : Big Data challenges for e-Mobility- Smart City

Category : Software

Technology : Smart Vehicles

Complexity : Complex

Youtube link :   
https://www.youtube.com/na

#### Problem Statement Details

Description  
 A Smart city will have various elements like power, water, etc monitored through a central control room. The Control Center will be the single source of information for administrators and decision makers. The new set of challenges faced by a Smart Grid, e-Charging network and e-Vehicle users culminate in the Smart City Control room as an indicator of traffic movement/congestion, power demand and various other related parameters. The solution need to be integrated into the Smart city control room  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 394. Big Data challenges for e-Mobility- infra operator

Organisation : ABB GIS Pvt Ltd

Title : Big Data challenges for e-Mobility- infra operator

Category : Software

Technology : Smart Vehicles

Complexity : Simple

Youtube link :   
https://www.youtube.com/na

#### Problem Statement Details

Description  
 The E-Charging Operators (equivalent of today’s petrol pump operators) need a Big Data approach to ensure their customers (end-users) satisfaction and optimum utilization of the e-Charging stations. The operator may have fast or slow charging infrastructure with their own payment terms and timings. Based on a data-centric approach the operator can offer dynamic pricing at stipulated times and manage the peak demand accordingly.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 395. Big Data challenges for the e-Mobility

Organisation : ABB GIS Pvt Ltd

Title : Big Data challenges for the e-Mobility

Category : Software

Technology : Smart Vehicles

Complexity : Simple

Youtube link :   
https://www.youtube.com/na

#### Problem Statement Details

Description  
 An EV user must be assured that power will be available when needed especially in an unfamiliar area. A route optimization approach based on Machine Learning needs to be considered to ensure that vehicle drivers are led to the nearest or their preferred e-Station.  
Organization Type  
  
  
 Industry Personnel   
Created At  
22nd October , 2018  
Updated At  
 22nd October , 2018

# 396. Online Adaptive Assessment Platform

Organisation : SSEPL Skills Pvt Ltd.

Title : Online Adaptive Assessment Platform

Category : Software

Technology : Software - Web App development

Complexity : Simple

Youtube link :   
https://www.youtube.com/watch?reload=9&v=N0T851LPU

#### Problem Statement Details

Description  
 Aspirants/Students can be assessed on different fields using this website. Fields can be Reasoning, Aptitude, Technical MCQ, Coding etc. This will be an online platform with questions at different levels (Difficulty). Candidate would start at assessment with a medium difficulty question and depending on its response, the platform should decide the next level of questions to be shown (level would increase or decrease as per response). Each question would be assigned a weightage and time duratio  
Organization Type  
  
  
 Industry Personnel   
Created At  
20th October , 2018  
Updated At  
 20th October , 2018

# 398. Uplifting the Farmer through a Connected Ecosystem

Organisation : Mahindra&Mahindra(FarmEq)

Title : Uplifting the Farmer through a Connected Ecosystem

Category : Software

Technology : Software - Mobile App development

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=oSe4T8WKbC0

#### Problem Statement Details

Description  
 How can a farmer gain access to all the elements of his farming cycle?one stop shop where he has access to information from different aggregators, for retailing , leasing & finally taking his produce to the nearest mandi. Application to provide a means of easy transaction for all his farming activities and his personal expenses. Agri credit should help him buy/lease Farm Machinery & have access to all the local vendors for his plantation needs including expert advice from the local university  
Organization Type  
  
  
 Industry Personnel   
Created At  
19th October , 2018  
Updated At  
 19th October , 2018

# 401. Real Time Mapping of Epidemic Spread

Organisation : Thermo Fisher

Title : Real Time Mapping of Epidemic Spread

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complex

Youtube link :   
https://www.youtube.com/watch?v=CZ-yRbfrMT4&featur

#### Problem Statement Details

Description  
 We envision a simple portal which shall provide real time data on how an epidemic is and can spread. Real time status and alerts will be the primary objective of this project.   
  
  
  
To achieve this objective, we will need to build layers of crowd sourced data that will add up to provide rich real time status of an epidemic spread as it happens.  
Organization Type  
  
  
 Industry Personnel   
Created At  
15th October , 2018  
Updated At  
 15th October , 2018

# 402. Algorithm for double blinding of coal samples

Organisation : Coal India Limited

Title : Algorithm for double blinding of coal samples

Category : Software

Technology : Energy / Renewable Energy

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=oqIsDAIOv9A

#### Problem Statement Details

Description  
 The coal samples are marked when they are drawn from the rakes and sent to various labs of sampling agencies   
  
There is a need for a process to conduct coal sampling so that the anonymity of samples is maintained throughout the sampling stages for determining coal quality  
  
This step is essential to ensure no adulteration in coal quality during the entire process as it can have huge impact in organisational operation  
Organization Type  
  
  
 State Ministry   
Created At  
15th October , 2018  
Updated At  
 15th October , 2018

# 403. Personal Health Influencers through social network

Organisation : India Health Link Pvt Ltd

Title : Personal Health Influencers through social network

Category : Software

Technology : Software - Web App development

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=HxdFjL71lmg&featur

#### Problem Statement Details

Description  
 Build an API for IHL users (from IHL platform) to choose/select their friends/others from facebook, LinkedIN, whatsapp, others to form a group to play a challenge like average no of steps in a month, healthy food habits, health vitals (decrease in weight/BP etc.Gamify user experience to win rewards, badges etc.  
Organization Type  
  
  
 Industry Personnel   
Created At  
15th October , 2018  
Updated At  
 15th October , 2018

# 404. Smart body posture recognition & Guiding system

Organisation : India Health Link Pvt Ltd

Title : Smart body posture recognition & Guiding system

Category : Software

Technology : Healthcare & Biomedical Devices

Complexity : Complicated

Youtube link :   
https://www.youtube.com/watch?v=\_\_N6D3eydq4&app=de

#### Problem Statement Details

Description  
 We have a self service wellness KIOSK that measures health vital parameters like BMI, BMC, BP, ECG, Pulse, Temp. And it designed to be non-assisted while user measures the vitals. A right body posture yields a correct result. We wanted the system should capture the image of the uses body posture like hand, leg etc via camera and through image processing; Compare the required postures for particular test, Analyse and guide users to have right posture in case the test is not carried out proper  
Organization Type  
  
  
 Industry Personnel   
Created At  
15th October , 2018  
Updated At  
 15th October , 2018