Guidelines for HACKWITHPSIT

- HACKWITHPSIT is 24 Hour contest starting at 9:00 AM on 11 August 2018 and will end at 9:00 AM on 12 August 2018.
- Team will have to register in prior to participate in the event.
- Each team will be comprised of 5 members – Team Leader + 4 members
- Each Team must have 1 female candidate either as a team leader or team member.
- Each team has to select one of the listed topic of the event from any one category as the there are three categories -
- Artificial Intelligence / Machine Learning
- Mobile Application
- Web Application
- Teams may come with their own dataset and prototype of the project selected. At the time of the event they will be given specific requirements to cover in the project.
- All teams will be judged by a panel of experts.

"HACKWITHPSIT 1.0" - A 24 hour Hackathon
[List of Projects]
Category-1 [Artificial Intelligence/ Machine Learning]

1.   Chatbot for Institute Related Queries:

A chatbot will be beneficial for institute related queries for a student. It will answer the queries related with fee structures, facilities available in college, placement records etc. It will help in providing the relevant information mostly at the time of admissions and will assist users 24 x 7. A dataset will be required from the institute to answer the queries relevant to real time scenario.

2.   Customer Classification Based on The Historical Purchase Data:

Customers are categorized into different classes based on their purchase history. In food market customer can be classified based on the type of food they eat: Vegetarian, eggetarian or Non-Vegetarian. In cloth market, they can be classified based on fabric they used, type of dress they use like: Indian dress, western dress, Indo-westerns. Classification of the customer can be helpful in targeting specific customer for the specific product. This can remove those irrelevant ads that do not suit for a customer or for which customer will not be interested at all.

3.   Chatbot Based on Sentiment Analysis or Opinion Mining:

Sentiment analysis or opinion mining as it's sometimes called can be a very powerful tool when creating a more engaging experience for your chatbot users. One of the biggest problems that we encounter when measuring satisfaction scores in chatbots is that users report frustration when communicating with a bot. The problem is that the chatbot doesn't know that a user is frustrated and continues business as usual which amplifies the problem. With sentiment analysis your chatbot can tailor the dialog based on the sentiment score calculated from the user input. This sentiment score can tell the bot if the user is having a positive, neutral or a negative experience.

4.   Real time Detection and Classification Of Vehicles using pre-trained Models(i.e. YOLO):

The objective is to detect and track the vehicles in real time. In real life, therefore, we require rich information about the surrounding. We need to understand how the objects are moving with respect to the camera. Classification of vehicles can be in car, cycle and bus categories. Vehicle detection and classification system for traffic scenes aims to guide surveillance operators and reduce human resources for observing hundreds of cameras in traffic surveillance which can reduce the rate of road accidents for drivers and also for driverless cars success rate can be increased. YOLO algorithm provides a way to do this task.

5.   Real-time face detection and gender classification:

A camera will detect the users face by putting a square around his face and provides the information, whether a person is male/ female based on their features.

Category-2 [Mobile Application]

6. **TheCityExplorer – A Mobile App:** Any traveler present in a new city can explore the variety of places along with the reviews and near by attractions. General information is also provided i.e. hospitals, ATM, Petrol Pumps available near by.

7. **QuizMaster – A Mobile App:** A quiz can be scheduled at future time slot for registered quiz users. Quiz will be accessible for a configured time period with the facility of auto save and auto submit feature. The Quiz Master will have the reports that will provide the necessary information along with the no. of breaks and their reason taken by user within quiz.

8. **WhatsApp++ – A Mobile App**: Users can chat and create groups. Member can only be added with his/her permission only. Any message can be labeled as spam, inappropriate, useful etc. based on which suitable actions can be taken over messages. A message monitoring system will classify the users based on the labels over their messages and take suitable actions i.e. account suspension or cancellation or trusted account.

9. **CounsellingChatbot – A Mobile App:** Chatbot will help on the basis of information like placement and university records of various colleges and available seats. This Chatbot will assist student in deciding a suitable college.

10. **FoodieCrawler – A Mobile App:** This will provide information for available places to be visited by foodies and leave their reviews for others to follow. Based on the reviews 5 star based rating is shown to foodies and suggestions for improvement will be send to relevant vendors. Review needs to be calculated over 100 reviews or above, less than 100 reviews will be considered as RatingAssessmentPhase.

Category-3 [Web Application]

11.   Grievance Redressal System – A Web Portal : Citizens can post and track their grievances here. Grievances are solved at village, taluka or district level. Stats of posted and resolved grievances will be displayed publicly. Severity level needs to be marked for each grievance and delay report needs to be generated as per the time taken to resolve at various levels. All stats and reports need to be updated at real time.

12.   RuralMarket – A Web Portal: This is an e-commerce platform where villagers can receive orders to manufacture products and showcase their portfolios.

13.   RentAProperty – A Web Portal: This will help users to list and search properties for rent. Reviews, preferences, favorites, suggestions and location based searching will be present.

14.   Discussion Forum- A Web Portal: This portal will provide holistic knowledge construction, support mechanism for efficient learning. This application will provide students to come together and discuss unlimited topics, including social activities and educational ideas. There will be four entities having access to the system [admin, teacher, Student, Alumni]. Admin manages the system by approving the threads added by the students, teachers and alumni. Admin can view all the threads and can mark a post as favorite, which will be listed at the top of all the discussion forums.

15.   Necessity Portal – A web Portal: This portal must efficiently help the individuals to search and contract the service vendors for usual house hold requirements like maid, plumber, electrician, tutor etc. as end to end communication without any brokerage.