

# OPEN HOUSE

FINAL YEAR PROJECT EXHIBITION 2020

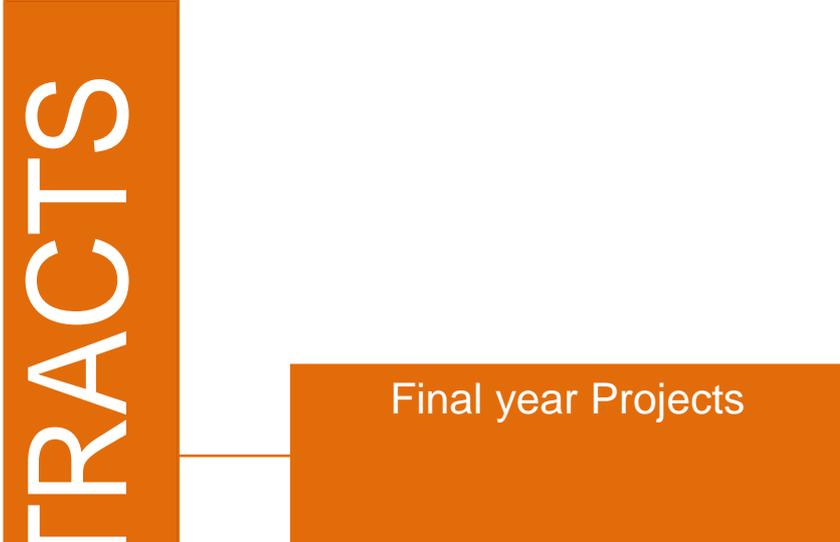


7<sup>TH</sup> JANUARY 2020  
FALL, 19

Department of Computer Science

# ABSTRACTS

Final year Projects



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<b>Project Title:</b>	<b>Movie Analytics</b>
<b>Students:</b>	<b>19-11236 Usama Nawaz</b> <b>19-11249 Shaheer Ahmed</b> <b>19-10657 Taris Zahoor</b>
<b>Supervisor:</b>	Dr. Mumtaz Sheikh Salman Chaudary
<b>Email:</b>	<a href="mailto:mumtazsheikh@fccollege.edu.pk">mumtazsheikh@fccollege.edu.pk</a> <a href="mailto:salmanchaudhry@fccollege.edu.pk">salmanchaudhry@fccollege.edu.pk</a>
<b>Abstract:</b>	<p>The movie industry can be seen to be in need of a bit of the prediction of success of a movie which can make them avoid huge losses. Stating the key points for movies to succeed which we have now got it covered. In our product, Movie analytics will use the data of the past movies as main source for which it will help predicting the success rate of a movie. The prediction will be based on the information that the user will input such like: Director, cast, crew, genre, story, budget, keywords, title, countries in which it is produced and directed and the language in which it is made. The prediction will be based accordingly to the data of each aspect and then foretell the success ratio of the movie.</p>

<b>Project Title:</b>	<b>Automated Binoculars</b>
<b>Students:</b>	<b>19-11108     Ali Iftikhar</b> <b>18-11110     Abdullah Butt</b> <b>19-10671     Shayan Zafar</b>
<b>Supervisor:</b>	Salman Chaudary Rauf Butt
<b>Email:</b>	<a href="mailto:salmanchaudhry@fccollege.edu.pk">salmanchaudhry@fccollege.edu.pk</a> <a href="mailto:raufbutt@fccollege.edu.pk">raufbutt@fccollege.edu.pk</a>
<b>Abstract:</b>	

<b>Project Title:</b>	<b>Multiplayer Game Development using Unity3D</b>
<b>Students:</b>	<b>18-10634      Muhammad Arslan Asif</b> <b>17-10648      Shahzaib Hameed</b>
<b>Supervisor:</b>	Salman Chaudary Dr. Nazim Ashraf
<b>Email:</b>	<a href="mailto:salmanchaudhry@fccollege.edu.pk">salmanchaudhry@fccollege.edu.pk</a> <a href="mailto:nazimashraf@fccollege.edu.pk">nazimashraf@fccollege.edu.pk</a>
<b>Abstract:</b>	

<b>Project Title:</b>	<b>Virtual TeacherAssistant</b>
<b>Students:</b>	<b>19-10655 Ghulam MuhhyuDin</b> <b>19-10664 Jahanzaib Tariq</b>
<b>Supervisor:</b>	Salman Chaudary Dr. Nosheen Sabahat
<b>Email:</b>	<a href="mailto:salmanchaudhry@fccollege.edu.pk">salmanchaudhry@fccollege.edu.pk</a> <a href="mailto:nosheensabahat@fccollege.edu.pk">nosheensabahat@fccollege.edu.pk</a>
<b>Abstract:</b>	<p>We have observed the routine of teachers and their struggles for evaluating the students, making results and checking the papers, which takes a lot of time. Although there are some techniques for that problem like taking online quiz and papers or scanning documents with some scanners but these also are not sufficient for teachers because they have to keep records in hard copy because the department asks for it. So, we decided to make a third-party application that will have our suggested features. A desktop application which will make teaching experience less scary, less hectic and less time taking.. To tackle problems like these, we have decided to make Virtual Teaching Assistant. Virtual TA will provide support to the teachers using camera and will be installed on the teacher's desktop, either in the office or where the instructor wants to use that. User can get this application from the web and start by calibrating the camera. This application will then connect with the camera and provide certain type of assistance using its feature and provide ease to the teacher. Whenever a fixed template comes in front of camera, our application will apply OCR (optical character recognition) on it using Google OCR API and extract the required data from the paper and store the data into the database for further use.</p>

<b>Project Title:</b>	<b>Color sorting mechanical arm</b>
<b>Students:</b>	<b>19-11256      NoumanMunir</b>
<b>Supervisor:</b>	Rauf Butt Dr. Sidra Minhas
<b>Email:</b>	<a href="mailto:raufbutt@fccollege.edu.pk">raufbutt@fccollege.edu.pk</a> <a href="mailto:sidraminhas@fccollege.edu.pk">sidraminhas@fccollege.edu.pk</a>
<b>Abstract:</b>	<p>The project revolves around the idea of using image processing to segregate fruits or any two objects which can be classified based on their observable characteristics. Image processing has been done using MATLAB software. Basic image processing system as an initial step was developed and then after that more features were added. The goal of the project was to achieve a system that could use machine learning to segregate fruits. The project has been fine tuned to be used with mangoes but any other fruits or even other objects can also be segregated using the system. The system has its own embedded system. The embedded system is used to control the conveyor belt on which the objects would move and it also contains a wiper to wipe away the discarded objects. Industrial significance of the project is very high as every industry today heavily relies on automated systems, especially agricultural industries must have a method to sort/segregate the production, this project can come handy where segregating fruit is needed. The project can be a breakthrough for fruit supplier companies as it revolves around the idea of segregating fruit based on their color and skin tone, it can be used in separating ripped fruit from un-ripped fruit. By doing minor modifications, we can segregate many other fruits or even vegetables using the same system.</p>

<b>Project Title:</b>	<b>Virtual Fitting Room in AR</b>
<b>Students:</b>	<b>19-11087                      Ubaid Ur Rehman</b> <b>19-11139                      Saad Saqib Rehmani</b> <b>19-11102                      HaniaJaved</b>
<b>Supervisor:</b>	Rauf Butt Shahid Mehmood
<b>Email:</b>	<a href="mailto:raufbutt@fccollege.edu.pk">raufbutt@fccollege.edu.pk</a> <a href="mailto:shahidmehmood@fccollege.edu.pk">shahidmehmood@fccollege.edu.pk</a>
<b>Abstract:</b>	<p>This project is about developing an augmented reality based fitting room with the help of Kinect for a real-life experience of being able to try out clothes. It aims to give user a hassle free experience and save the user's time. This project does not completely eradicate the concept of physically trying on clothes but reduces the need to a minimum by letting the user see how he/she looks in an outfit without trying having to try it on. This project makes use of 3D models, joint to joint mapping and animation rigging to make virtual fitting room as realistic as possible. Unity is used as the development platform in connection with Kinect 2. As a result, the user is able to choose from a range of clothing that is according to their size, gender and age automatically. Thus, virtually trying out whatever clothes they deem fit.</p>

<b>Project Title:</b>	<b>Battlefield AR</b>
<b>Students:</b>	<b>19-11077      Khozema Lodhi</b> <b>19-11104      Bushra Habib</b>
<b>Supervisor:</b>	Fakhir Shaheen Dr. Nazim Ashraf
<b>Email:</b>	<a href="mailto:fakhirshaheen@fccollege.edu.pk">fakhirshaheen@fccollege.edu.pk</a> <a href="mailto:nazimashraf@fccollege.edu.pk">nazimashraf@fccollege.edu.pk</a>
<b>Abstract:</b>	This project is an Augmented Reality based 1 <sup>st</sup> person multiplayer shooting game that is known as “Battlefield AR”. This game enhances your gaming experience with the help of Augmented Reality. Basically, it is a combination of AR and a multiplayer shooting game. Players can Co-Op each other in fighting a monster/enemy in their real world and thus saving their world.

<b>Project Title:</b>	<b>Study on hacking an electronic device by Radio Wave</b>
<b>Students:</b>	19-10193      M. Ahmed Saad
<b>Supervisor:</b>	Dr. Saad Bin Saleem Dr. Mubashar Mushtaq
<b>Email:</b>	<a href="mailto:saadsaleem@fccollege.edu.pk">saadsaleem@fccollege.edu.pk</a> <a href="mailto:mubasharmushtaq@fccollege.edu.pk">mubasharmushtaq@fccollege.edu.pk</a>
<b>Abstract:</b>	

<b>Project Title:</b>	<b>Tool towards process model</b>
<b>Students:</b>	19-10555 Raahim Ahmad
<b>Supervisor:</b>	Zeeshan Haider Malik Fakhir Shaheen
<b>Email:</b>	<a href="mailto:zeeshanmalik@fccollege.edu.pk">zeeshanmalik@fccollege.edu.pk</a> <a href="mailto:fakhirshaheen@fccollege.edu.pk">fakhirshaheen@fccollege.edu.pk</a>
<b>Abstract:</b>	<p>The primary objective of this project is to develop a tool that helps advisors and students with Final Year Projects by keeping a track of all the related segments. This model will assist the students in accomplishing their goals towards the final year project. This model will also shower light upon how process models are used in the practical world. With the help of this tool, advisor will guide the student how to achieve desired results within deadlines efficiently and will assist them in times of difficulty. The tool will help keep a check on the project progress and keep a record of contributions of each of the group members. This will be designed in accordance with workload and deadlines and in coordination with Advisor. This tool support was published at Computing Conference in London UK. Most of the times during the process of Final year Project, a lot of effort is put in by the team members, however sometimes the end result is not as good as the judges were hoping; either due to failure to present properly or because of lack of knowledge. At that point there is no telling whether hard work was actually put in by the students or not. And in some cases, even after a lot of hard work but due to no acceptable outcome, the project is not received well by the judges and the project is rejected. This tool will help the judges in better grading the projects. Not a single process modal exists.</p>

<b>Project Title:</b>	<b>Traffic Control Simulator</b>
<b>Students:</b>	<b>19-11223</b> <b>Jeff Haroon</b> <b>19-10582</b> <b>Joshua Samuel</b> <b>19-11186</b> <b>Qasim Mahmood</b>
<b>Supervisor:</b>	Dr. Nosheen Sabahat Rauf Butt
<b>Email:</b>	<a href="mailto:nosheensabahat@fccollege.edu.pk">nosheensabahat@fccollege.edu.pk</a> <a href="mailto:raufbutt@fccollege.edu.pk">raufbutt@fccollege.edu.pk</a>
<b>Abstract:</b>	

<b>Project Title:</b>	<b>Head Space</b>
<b>Students:</b>	<b>18-10863 Amroz John</b> <b>19-10562 Usman Riaz</b>
<b>Supervisor:</b>	Dr. Nosheen Sabahat Dr. Aasia Khanum
<b>Email:</b>	<a href="mailto:nosheensabahat@fccollege.edu.pk">nosheensabahat@fccollege.edu.pk</a> <a href="mailto:aasiakhanum@fccollege.edu.pk">aasiakhanum@fccollege.edu.pk</a>
<b>Abstract:</b>	

<b>Project Title:</b>	<b>Domain Adaptation for Lane Marking: An Unsupervised Approach</b>
<b>Students:</b>	<b>19-11137 Ammar Saqib 21-10728 Sarah Sajid 19-11161 Sheikh Mahad Arif</b>
<b>Supervisor:</b>	Dr. Amara Tariq Dr. Nazim Ashraf
<b>Email:</b>	<a href="mailto:amaratariq@fccollege.edu.pk">amaratariq@fccollege.edu.pk</a> <a href="mailto:nazimashraf@fccollege.edu.pk">nazimashraf@fccollege.edu.pk</a>
<b>Abstract:</b>	