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| **Apex Institute of Engineering, Chandigarh University**  **Department of Computer Science & Engineering**  **Project Proposal** |
| **Date: 06-03-2023** |
| **Project Title : Real-Time Object Detection using Deep Learning Techniques** |
| **Project Scope**  Real-time object detection is a broad, active, and challenging field of computer vision. Object recognition allows you to recognise instances of various items in photos, movies, or video recordings. As an alternative to conventional object identification methods, it recognises the various aspects of images and produces an intelligent and efficient interpretation of the images, much like how human vision does.  Real-time object detection applications include object tracking, video surveillance, pedestrian identification, people counting, self-driving automobiles, face detection, ball tracking in sports, and many more.  In order to accomplish machine vision understanding, object detection methods try to recognise all target items in the target image and determine their categories and positions. Many approaches to solving this problem have been presented, primarily inspired by computer vision and deep learning methodologies.    Object detection can be used to count objects in a scene, determine and track their precise locations, and precisely label them using this type of identification and localization. It can help you automate certain processes, giving Retail, Healthcare, Manufacturing, Transportation, and other industries a competitive advantage. By adopting smart software platforms, Exposit Machine Learning engineers have increased their knowledge in addressing complicated business tasks. |
| **Requirements**   |  |  | | --- | --- | | **Hardware** | **Software** | | CPU - Core i5/Ryzen 5 or above | Python Compilers (Jupyter Notebook, Spyder, etc) | | RAM & ROM – 8Gb and 500Mb or above | Code Editors (Visual Studio Code, Notepad, etc) | | Web Cam (built-in/external) | Python packages for Deep Learning Techniques | |
| **Student Details**   |  |  |  | | --- | --- | --- | | **Name** | **UID** | **Signature** | | MOGULAGANI SAI KUMAR | 20BCS4547 |  | | BODDU SATEESH | 20BCS4514 |  | | GELLI PAVAN KUMAR | 20BCS4539 |  | | CHARANAM DINESH KUMAR | 19BCS4656 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | Approval and Authority to Proceed  I approve the project as described above, and authorize the team to proceed.   |  |  |  | | --- | --- | --- | | Name | Title | Signature (with Date) | |  |  |  | | |