**K. J. Somaiya College of Engineering, Mumbai-77**

(Autonomous College Affiliated to University of Mumbai)

**Department of Information Technology**

**Project 2018-19**

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| **Project ID: 20**  **Project Name: Speech to 3D Scene Generation.** | | |
| **Criteria** | **Existing / Developed application (Project)** | **Proposed Application/ Project in 2018-19** |
| **List Functional Requirements** | 1. Text to Scene Generation.  2. Unnatural/Natural Language Processing.  3. Static Scene Rendering. | 1. Speech to Scene Generation.  2. Near real-time scene generation/manipulation.  3. NLP (Natural Language Processing).  4. Geometric depiction. |
| **Implementation Methodology** | An input text is entered, the sentences are tagged and parsed, the output of the parser is then converted to a dependency structure, and this dependency structure is then semantically interpreted and converted into a semantic representation. | The process starts by taking an input from the user in the form of voice which will in turn be converted into text using the Google Cloud Speech-to-Text API. The text generated from the speech to text API is than tagged and broken down and parsed using the parts-of-speech tagger. And next thing is semantic representation of that sentence. The semantic fragments will be used to define the low level 3D graphical figures. |
| **Algorithm Used (If Applicable)** |  |  |
| **Software Requirements** | 1. js enabled web browser. | 1. Windows OS  2. Internet |
| **Hardware Requirements (If Applicable)** | 1.Computer | 1.Computer  2.Microphone |
| **Data set used (If Applicable)** | Spatial dataset. | Google 3D warehouse |
| **Remarks of Guide:** | | |
| **Name and Signature of Guide:** | | |