**R.B.S. Engineering Technical Campus, Bichpuri, Agra** Department of Computer Science & Engineering

ABSTRACT

**Name of Project** – NexaVox (The next generation’s voice)

**Objective** – Our Objective is to develop a versatile web conferencing platform that offers both offline and online live-streaming capabilities. Our unique selling point is real-time language translation through subtitles and voice, ensuring effective communication between participants, and setting us apart from existing solutions like Zoom and Google Meet.

**Description** – Our application harnesses the power of Python socket programming for seamless video and audio streaming to effortlessly connect two or more systems over a LAN and we harness the power of computer vision to access webcams. For online streaming, we employ cutting-edge WebRTC technology and its related innovations. The UI of the application will be Web-based.

**Previous Technologies –** In previous iterations of translation technology, the capability was primarily focused on facilitating live streaming over the internet for example Zoom and Google Meet.

**Weakness in Previous Technologies –** In previous technology they are mainly focussed on live streaming over the Internet by using RTMP (Real Time Message Protocol).

**Solution to Overcome this Problem** – At NexaVox, we offer a unique solution that sets us apart from others in the field. Our platform not only enables seamless live streaming over the internet but also provides the flexibility for offline mode streaming over LAN (Local Area Network). What truly distinguishes our project is our real-time language translation feature, allowing for effective communication across languages in both online and offline environments.

**Hardware, Software & Interface Required** – Our system will work on any type of device having a web browser, Windows or Mac operating systems, also the device must have a webcam for live stream.

**Applications of the Project** – This Project will find great use in virtual business Meetings and Conferences & webinars, Remote work international Events, etc.

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