**B.TECH PROJECT PROPOSAL**

| **Sl No** | **Contents** | **Details** |
| --- | --- | --- |
| 1 | Number of students in the group | 4 |
| 2 | Name of the students with registration number | Akhil Sankar S SJC20CS013 |
| Alphy George SJC20CS022 |
| Irene Molly Varughese SJC20CS064 |
| Rinta Maria Raju SJC20CS106 |
| 3 | Area of project work | IOT |
| 4 | Tentative title of project work | Third Eye – connecting the dots of the unseen world |
| 5 | Abstract of project work | Blind and visually impaired people have encountered a lot of challenges when performing most of the natural activities performed by non-disabled people. In particular, many dangerous situations occur in environments that are unfamiliar to them. This IoT project aims to enhance the mobility and independence of visually impaired individuals by developing a wearable device that can be attached to their spectacles. The proposed system uses IoT technologies to create a comprehensive environment perception and navigation aid, assisting blind individuals in recognizing and interacting with their surroundings more effectively. The device leverages Arduino technology and is seamlessly connected to a mobile phone. Its primary functionality is to detect objects in the user's vicinity and provide real-time audio cues to assist with navigation and obstacle avoidance. The system utilizes ultrasonic or infrared sensors to continuously scan the surroundings, measuring distances to nearby objects. The Arduino microcontroller processes this data and communicates wirelessly with a mobile phone application. The project emphasizes user-friendly design and accessibility, ensuring that visually impaired individuals can easily configure and use the device. Through this innovative IoT solution, visually impaired individuals gain increased awareness of their surroundings, improving their ability to navigate independently and with confidence. This project demonstrates the potential of IoT and Arduino technology to address real-world challenges and enhance the quality of life for individuals with visual impairments. |
| 6 | Software Requirements | Tensor Flow  pyttsx 3  ROI |
| 7 | Hardware Requirements | ARDUINO UNO R3 – 3000 /-  OV7670 Camera Module – 800/-  HC- SR04 Ultrasonic Sensor – 200/-  TOTAL - 4000/- |
| 8 | Name of Internal Guide (suggested) | Thushara Sukumar |
| 9 | Guides Approval (Yes/No) | Yes |

Date:-21-1-24 Signature of Student Members