Object Detection, Convert Object Name to Text and Text to Speech

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Abstract: *Visually impaired persons (VIPs) comprise a significant portion of the population, and they are present around the globe and in every part of the world. In recent times, technology proved its presence in every domain, and innovative devices assist humans in their daily lives. This work presents a smart and intelligent system designed to aid visually impaired persons (VIPs) in mobility and safety. Utilizing real-time navigation through automated voice assistance, VIPs can sense and understand their surroundings, facilitated by a deep learning model for object detection and recognition. The system includes a hardware component that automatically alerts family members and shares the VIP's location and incident details in case of abnormal object recognition. This ensures the safety of VIPs while upholding their privacy. This innovative solution enables VIPs to visualize their environment, empowering them with increased security. The employed deep learning model demonstrates high accuracy in object detection and recognition, enhancing the overall effectiveness of the system.*

Keywords: Visually impaired persons

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