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Smart Assisting for Visually Impaired People

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Abstract: Project addresses the integration of a complete Text Read-out system designed for the visually challenged. The system consists of a web cam interfaced with Raspberry Pi which accepts a page of printed text. The OCR package installed in Raspberry Pi, scans it into a digital document which is then subjected to image processing like skew correction, segmentation to classify the text that is captured. After the classification, the text is readout by a text to speech conversion unit (TTS engine) installed in Raspberry Pi. The output is fed to an audio amplifier then it is read out. The simulation is just an initiation of the image to text conversion and text to speech conversion done by the OCR software installed in Raspberry Pi. The system finds interesting applications in libraries, auditoriums, offices where instructions and notices are to be read and also in the assisted paper documents. By using ultrasonic sensor, we will measure the distance between the blind people and obstacle then the distance will be played through audio output..

Keywords: Visually Impaired People

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