

**Image to text to speech conversion with intonation using machine learning for regional language**

**Mini-Project Synopsis**

*submitted to*

*Dr. Madhushankara.M*

Manipal School of Information Sciences, MAHE, Manipal

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| **Reg. Number** | **Name** | **Branch** |
| **201046012** | **Pooja C A** | **Big Data & Data Analytics** |
| **201046029** | **Karthik Ballullaya MK** | **Big Data & Data Analytics** |
| **201046042** | **K. Viswateja** | **Big Data & Data Analytics** |

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1. **Objective**

The objective of this project is to convert images to text and text to speech with intonation using machine learning for a regional language.

1. **Block Diagram/Flowchart**
   1. Abstract Block Diagram:

Voice Processing Module (TTS)

text

Image Processing Module (OCR)

Voice

Image

Fig 1: Abstract block diagram

* 1. Flow diagram for Image Processing Module (OCR):

Text

Text Recognition Module

Pre-processed

Image

Image

Pre-processing

Fig 2: Block diagram of Image Processing Module (OCR)

* 1. Flow diagram for Voice Processing Module (TTS):

Voice

Text Recognition Module

Pre-processed

Text

Text

Pre-processing

Fig 3: Block diagram of Voice Processing Module (TTS)

1. **Applications**
   1. Banking:
      1. Handle cheques.
      2. Bank application conversion to digital format.
   2. Legal:
      1. Convert paper document to digital format.
      2. Summarise the legal document to voice.
   3. Health Care:
      1. Convert patient records to digital format for easier accessibility.
      2. Summarise the previous health record through voice.
   4. People with learning disabilities who have difficulty large amount of text due to dyslexia or other problems really benefit from TTS.
   5. Screen readers for people with difficulties reading computer screen.
2. **Software & Hardware Requirements**
   1. Python
   2. Libraries:
      1. <https://pypi.org/project/pyttsx3/>
      2. <https://pypi.org/project/pytesseract/>