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(71)**Name of Applicant :**
  1)**Dr. G.Gayathri Devi**
    Address of Applicant :Assistant Professor, Department of Computer Science, Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women (Autonomous), Chromepet, Chennai-600044 - ---------- -----------
  2)**Sathyanarayanan Govindarajan**
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
  1)**Dr. G.Gayathri Devi**
Address of Applicant :Assistant Professor, Department of Computer Science, Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women (Autonomous), Chromepet, Chennai-600044 - ---------- -----------
  2)**Sathyanarayanan Govindarajan**
Address of Applicant :Senior System Architect, Farmers Insurance, 6303 Owensmouth Ave, Woodland Hills, CA 91367 --- -------- -----------

(57) Abstract :
This invention proposes a novel method and system for the conversion of Tamil text from printed images into an editable format and subsequently transforming it into Braille script for visually impaired individuals. The system utilizes advanced Optical Character Recognition (OCR) technology and machine learning techniques to recognize and transcribe Tamil text in images accurately. The algorithm processes the image by splitting it horizontally and vertically, identifying any slant lines, determining the number of loops in each quadrant, and calculating the pixel count and the height to width ratio. The recognized text is then converted into Braille considering the unique grammatical rules of the Tamil language. Extensive testing of the system using a Tamil text image dataset shows a high degree of accuracy in recognition and conversion, demonstrating its potential as an effective tool for enhancing Tamil text accessibility for visually impaired individuals.

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