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(54) Title of the invention : A TECHNICAL SYSTEM FOR AUTOMATED LEGAL RIGHTS DISSEMINATION TO ILLITERATE POPULATIONS USING VOICE-ENABLED EDGE COMPUTING

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(57) Abstract :

The present invention discloses a technical system comprising a voice-enabled edge computing device (100) with microphone array (118), ARM SoC processor (120) with NPU (122), noise-robust speech processing module (102), jurisdiction-aware content engine (104), and legal-text simplification module (106). The system achieves 15-25% improvement in speech recognition accuracy for Indian dialects in rural environments, provides location-specific legal information with 2km accuracy, operates offline supporting 95% of queries, and maintains response latency under 500ms. Deployable through kiosk terminals, mobile handsets, and IVR gateways with tamper-evident audit logging for legal accountability.

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