

## **AI Voice Assistant for Smartphones With NLP Techniques**

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### **Abstract**

The AI voice assistant mobile application was developed to aid drivers in operating their mobile phones while driving without touching their phones. The literature review examines multiple innovative artificial technologies involved in applications with voice assistants in natural language processing (NLP) techniques. The methodology used involved a qualitative approach, and the design science paradigm was used for the development of the voice assistant for smartphones with NLP techniques. NLP techniques that were applied in the development of the AI voice assistant are smart synthesis, data flow sequence, core and interface accessing, part of speech tagging, named entity recognition, conference resolution, and porter stemming. Some of the operations that are achieved by the application include arithmetic calculations based on voice commands and returning the computer result via voice, searching the internet based on user voice input, and providing a response via voice assistance.