**ABSTRACT**

*Automatically understanding spoken natural language has become increasingly important as it enables various applications, especially with the rise of mobile and ubiquitous computing. However, building reliable spoken language understanding (SLU) systems poses significant challenges. Current speech interfaces like Apple Siri, Google Now, and Microsoft Cortana, though powerful, still lack the naturalness of human conversation. This project aims to address the shortcomings of modern speech interfaces by employing machine learning approaches to enhance each component of a spoken language system. The ultimate goal is to advance toward natural, conversational speech interfaces for automated systems. The project focuses on building a neural network for recognizing lexical words in speech using Python. The specific objectives include speech denoising with a neural network and word recognition using a convolutional neural network. The scope is limited to audio and not visual aspects. The significance of the study lies in its potential to create a framework for recognizing speech patterns of Nigerian words, facilitating improved translations to other languages.*