

Abstract:

The problem statement is in real world which specifically in the Ministry of National Guard Health Affairs they have a system call a ME service desk which is in simple words if you have a problem, you request an email to the employee who are responsible for the requests to help you. The problem is the process takes to much time to solve it and they are many requests to handle it.

The purpose of this project is Creating a chatbot program for the ME service desk system how can be interactive with the clients and enters all the required information without the need for real Agent to save the time by decrease the load of the routine problems, in certain cases transfer the client to the real agent.

- **Design:**

The proposed system here is an Interactive chatbot program for the ME service desk system, which is a system used by only NGHHA employees, and who work closely to them, to enter and send a request for any IT problems. We believe that it is best to deploy this system as a module that is connected to other departments so that information and instructions can be transferred quickly and effectively. There are several benefits expected from this AI program when implemented and used effectively.

Some of them are:

1. Improve and speed up receiving the request from users.
2. Decreasing the load on the agent through by receiving non-routine requests

- **Data:**

Until now we create 278 **Entity**, 3 **Columns** from crash, and the entity about scenarios and the **Columns** are Tag, Responses and Patterns.

- **Algorithms:**

Tokenization - Removing stop words - Removing punctuation - Lower letters - Stemming
NET - Part of speech - Count-vectorizer - TD-IDF - clustering with topic models LSA and the K-Means.

- Tools:

Programs: Python programming language.

Libraries: Panads – Matplotlib – NumPy – Seaborn - scikitlearn- SpaCy - Polyglot –NLTK – TextBlob – Keras – Pickle – Chatterbot – Flask.

- Communication:

