DEPRESSION CHATBOT INTERGRATION IN SOCIAL MEDIA

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Write you abstract here.

General Terms: Terms

Additional Key Words and Phrases:

# INTRODUCTION

## Background of the Study

Body of Section 1 here.

## Problem Statement

The main problem of the study is …

The specific problems of the study are as follows:

1. Problem 1
2. Problem 2
3. Problem 3

## Objectives

The main objective of the study is …

The specific objectives of the study are as follows:

1. Specific objective 1
2. Specific objective 2
3. Specific objective 3

## Significance of the Study

Body of Section 4 here.

## Scope and Limitations

Body of Section 5 here.

# REVIEW OR RELATED LITERATURE

## Section 1 (Replace the heading appropriately.)

Body of Section 1 here.

## Artificial Neural Network

Artificial neural networks are models that are being computed and are inspired by the idea of the structure of the human brain to solve perplex problems. [1] Those problems would involve some specific tasks like clustering, classification, pattern recognition, and many more. [2] Artificial neural networks also contain a series of layers of nodes (input, hidden, and output) that compute and function as nonlinear summing devices. These nodes have numerous interconnections by having weight in each connection, and these weights are adjusted when the gathered data is to be fed to the network at the process of training. [3] The values of the weights are randomly assigned and are changed during the training process in relation to the output. [1]

In a related study that uses artificial intelligence in discriminating unipolar and bipolar depressive disorders, artificial neural network was used for the diagnosis, treatment planning, and monitoring of psychiatric and neurological diseases. Raw electroencephalography data were used from the 89 subjects as inputs to feed the neural network. Moreover, in the use of particle swarm optimization for the feature selection, it increased the classification accuracy of their PSO-ANN hybrid model with a result of an overall accuracy of 89.89%. Before and after feature selection had classification accuracies from 64.52% to 83.87% for bipolar disorder subjects and from 77.59% to 93.10% for unipolar disorder subjects. By this, the researchers for this study concluded that their findings from this experiment has the potential to be used as a clinical tool in classifying unipolar disorders and bipolar disorders. [4]

# SUBSECTION 1 (As appropriate only)

Body of subsection 1 here.

Tables should appear as follows.

Table I. Caption of Table I

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |

If there are numbered listings, this is how the numbered listings should appear.

1. Item 1
2. Item 2
3. Item 3

If there are bulleted listings, this is how the bulleted listings should appear.

* Item 1
* Item 2
* Item 3

Theorems should appear as follows.

Theorem 1.1. Description of theorem here.

Formulas should be inserted using an equation editor.

Figures should be captioned as follows.



Fig. 1. Caption of figure here.

Pseudocode, prosecode or literate code of algorithms should be presented as follows.

**ALGORITHM 1:** Iterative Algorithm

current\_position ← center

current\_direction ← up

*current\_position* is inside circle

**while** current\_position is inside circle, **do**

*neighborhood*  ← all grid hexes within two hexes from *current\_position*

**for** each hex in neighborhood, **do**

**for** each neuron in hex **do**

convert neuron\_orientation to vector

scale vector by neuron\_excitation

vector\_sum ← vector\_sum + vector

end

end

normalize *vector\_sum*

current\_position ← current\_position + vector\_sum

current\_direction ← vector\_sum

return current\_position

end

Description of the algorithm here.

## Section 2 (Replace the heading appropriately.)

Body of Section 2 here.

# METHOdology

## Section 1 (Replace the heading appropriately.)

Body of Section 1 here.

## Section 2 (Replace the heading appropriately.)

Body of Section 2 here.

# theoretical background

## Section 1 (Replace the heading appropriately.)

Body of Section 1 here.

## Section 2 (Replace the heading appropriately.)

Body of Section 2 here.

REFERENCES

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2. Overview of artificial neural networks and its applications, May 05, 2017. Retrieved January 6, 2018 from Xenonstack: https://www.xenonstack.com/blog/overview-of-artificial-neural-networks-and-its-applications

3. Artificial neural networks, April 15, 2001. Retrieved January 6, 2018 from Wilely Online Library: http://onlinelibrary.wiley.com/doi/10.1002/1097-0142(20010415)91:8+%3C1615::AID-CNCR1175%3E3.0.CO;2-L/full

4. Turker Tekin Erguzel, Gokben Hizli Sayar, Nevzat Tarhan. Artificial intelligence approach to classify unipolar and bipolar depressive disorders, 2015

Authors. Book Title. Publisher, City of Publication, Year of Publication.

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