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DEPT: MECHANICAL

ENGINEERING

MATRIC NUMBER:

18/ENG06/071

CONCEPTUALIZATION.

The purpose of this software to improve the irrigation system currently in abudad in preparations for the various seasons. It is going to be designed to be able to read soil temperature, calculate soil moisture content along with many others.

System development cycle.

The software would be in the form of an application so that it can easily be downloaded or moved from one system to the other through the use of a storage device e.g. flash drive, hard drive.

The system would have access to a network and also a scanner, the reason for a network is so that the software application would have precise and accurate readings or measures whenever it's carrying out a process. Such processes including reading the temperature of a soil and comparing it with that of the required temperature it's supposed to have, or determination of the moisture or mineral content in a soil etc. while the reason for a scanner is to be able to scan raw physical materials and send its scanned copy into the system so as to carry out the research. Documents would be programmed into the software. The information for the software can either be found from the web or from books and personal studies. During the implementation stage all codes would be written so as to accept input documents and give an accurate result from the scans. it is then tested, if it works out fine then it is moved for mass production. Otherwise it is taken back to the workshop for defect tracking.

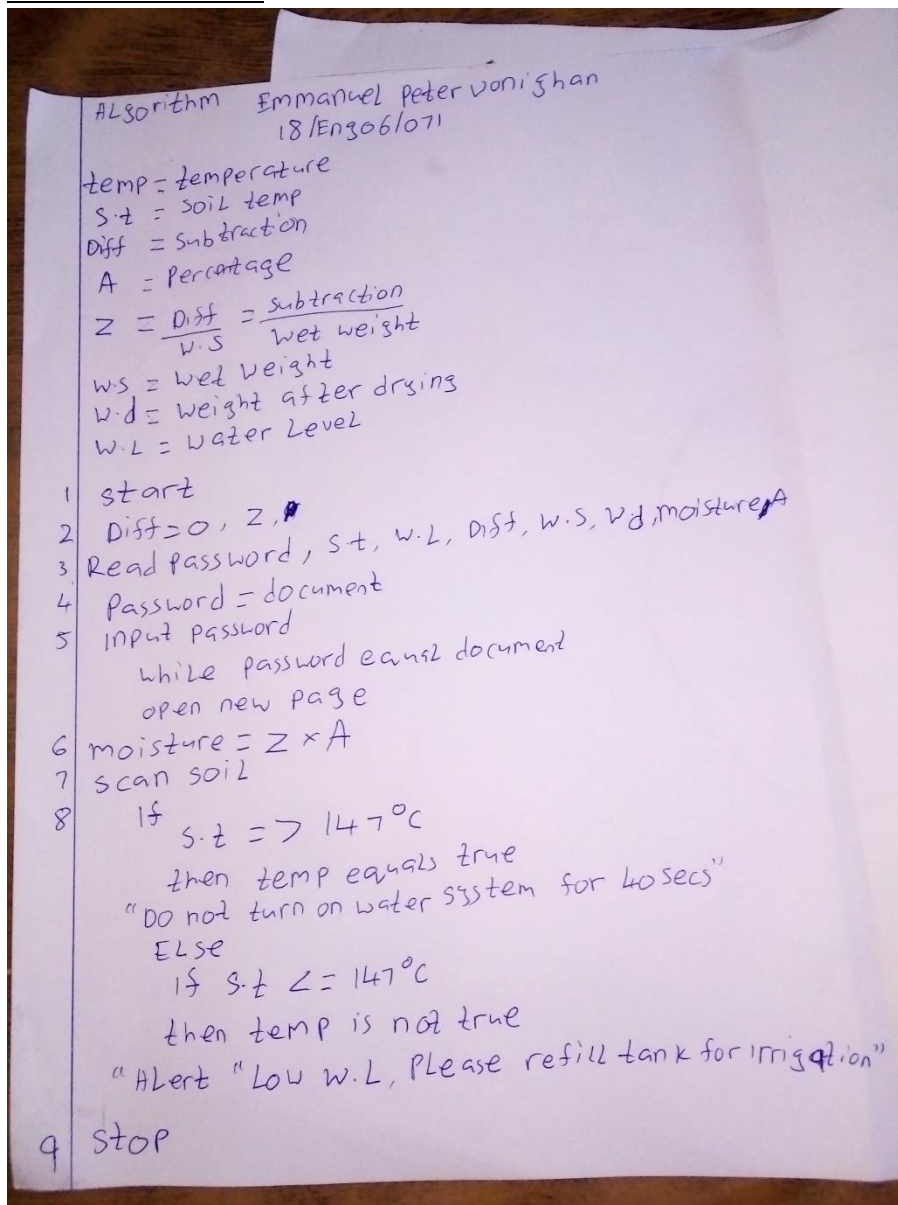
FEATURES

Hardware features include, a usb cord, storage device, thermocouple, pyconometer(storage tank for the soil),clock, weighing machine, scanner, 1) 8 GHz or faster processor,4 GB of RAM, 16GB (NTFS) of available hard disk space.

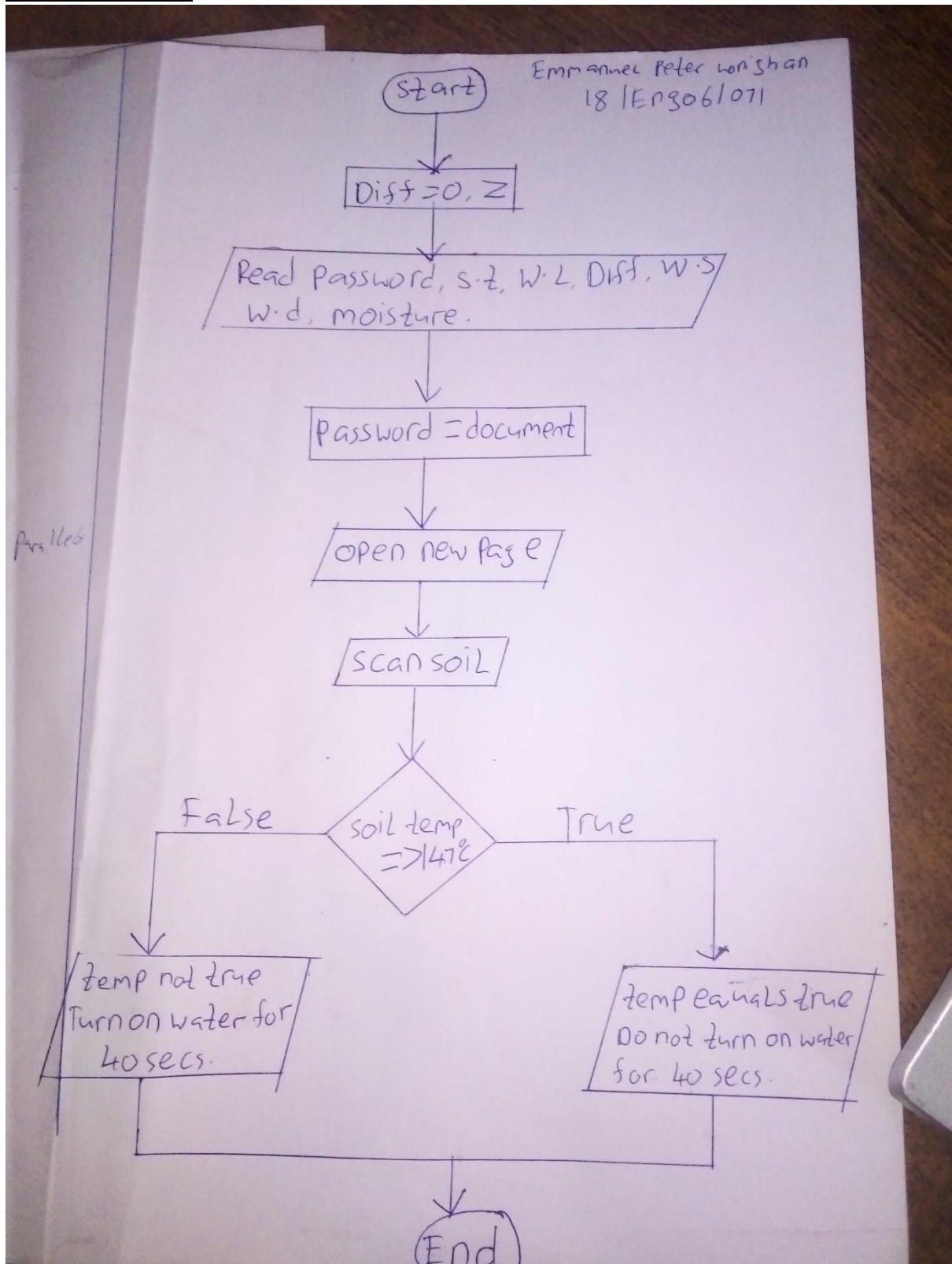
Software features include a platform of Microsoft Windows 10 Operating System. The Other Supported Operating systems that could work for it include:

- 1) Windows 7 SP1 (x86 and x64)
- 2) Windows 8 (x86 and x64)

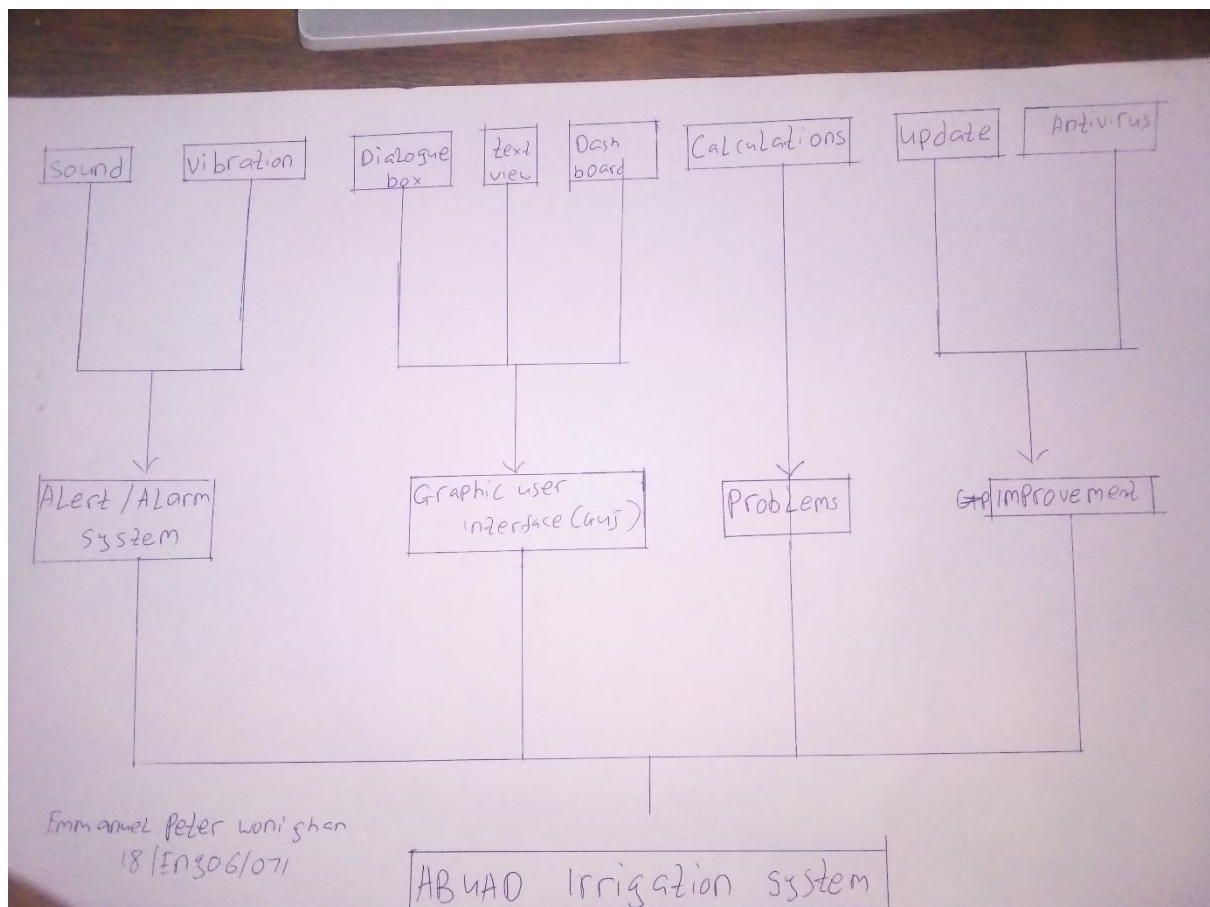
ALGORITHM



FLOWCHAT



BOTTOM TOP DIAGRAM



A PROPOSED PROGRAM FOR THE CREATION OF THE APPLICATION USING PYTHON.

IT WOULD NOT WORK AS A RESULT OF MY LITTLE KNOWLEDGE ABOUT PYTHON

assignment.py •

```
1 import document
2 user = abud.document()
3 password = abud.document()
4 if svc_login(user,password)
5 print('access granted')
6 else:
7     print('access denied')
8     num1 = int(input("Enter First Number: "))
9     num2 = int(input("Enter Second Number: "))
10
11 print("Enter which operation would you like to perform?")
12 ch = input("Enter any of these char for specific operation +,-,*,/: ")
13
14 result = 0
15 elif ch == '-':
16     result = num1 - num2
17 name = print('result')
18 moisture = (name*100)/num1
19 #do not turn water if temp and water moisture is equal to 147 degrees
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

> & "C:/Users/Emmanuel Nonigban...
.../author/assignment.py"