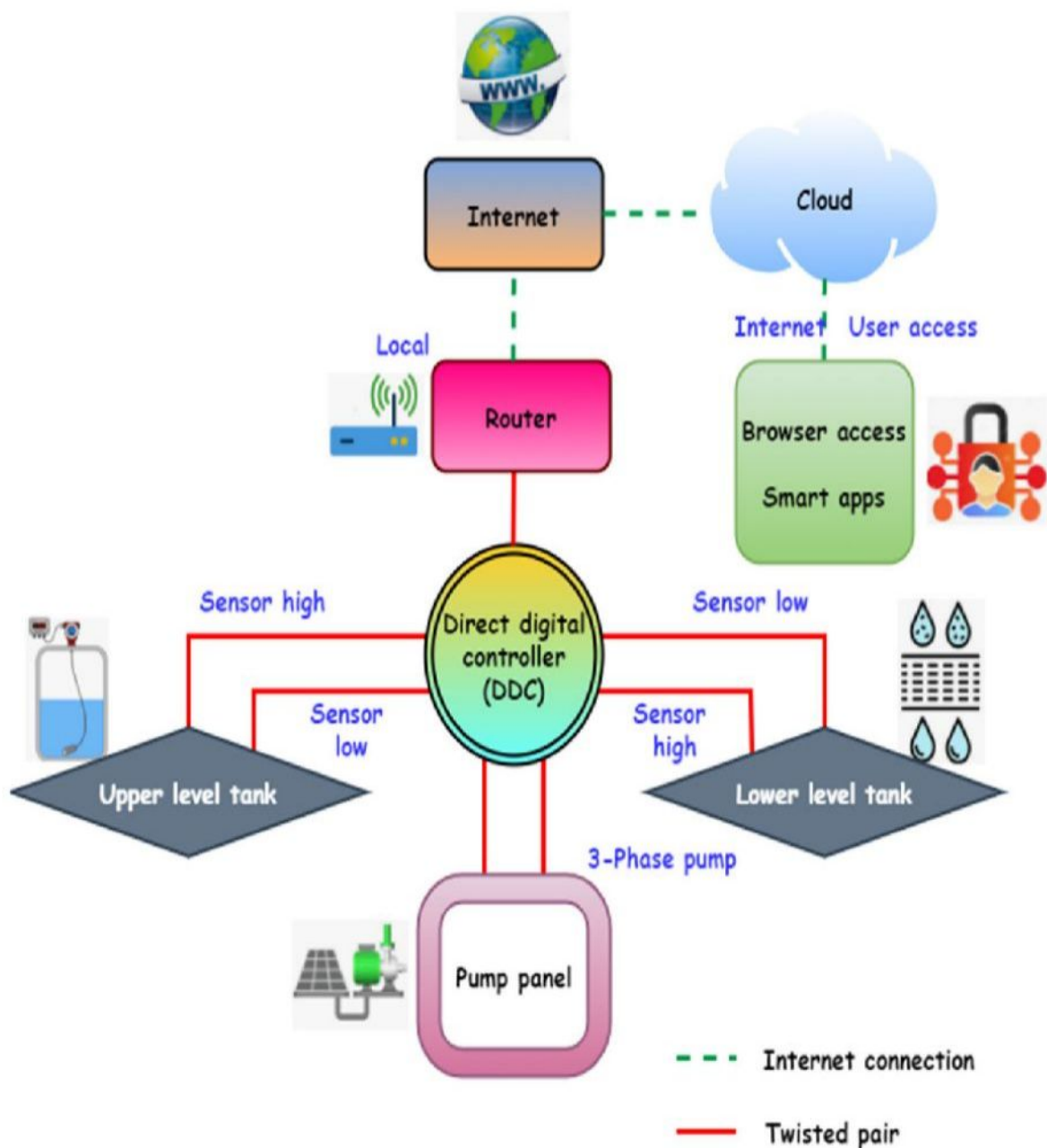


SMART WATER MANAGEMENT DEVELOPMENT...

Water is one of the fundamental resources that aid life and there are speculations that estimate at 2025 almost half of the urban population will live under short supply and water stress. With the usage of new technological advancements in IoT (Internet of Things) powered smart devices for water management, it can become a worthy implementation towards avoiding the predicted water depletion. In the past years up until recently, water monitoring and management were manually carried out with intensive power requirements and high capital expense with low efficiency recorded. Overflow of water overhead tanks in residential, commercial, cooperate and educational settings, as well as broken pipes resulting in spillage, contribute to wastage at large. Regular reservoirs for water cannot monitor nor give analytics and automated water level detection in the tank. Vandalization or transmission blockages on distributions pipes may take so long to discover. The proposed model addresses problems mentioned above by the application of portable smart systems with interoperability and easily configurable to handle automated management of water supply with energy efficiency and a reduction in power cost in both homes and enterprise environment within smart cities as well as reduction of the rate of building degradation as a result of overflow from overhead tanks.

water supply project generally consists of a water collection unit, conveyance system, and units for treatment, purification, and distribution. It is necessary to plan, prepare, and design the entire water supply scheme before constructing the units.

is a transparent colorless chemical substance with one oxygen atom covalently bonded to two hydrogen atoms. Water is cycled continuously on Earth through evaporation, transpiration, condensation, precipitation, and other means.



```
i=0
while i<6:
    x = comm.readline().decode().strip()

    if x=="start":
        run_audio_file("audio/start.wav")
        # store the start time of motor
        start = datetime.datetime.now().strftime("%X")
        mydevice.digitalWrite(4, 'HIGH')
        twilio_alert(x)
        print("\nMotor on..")

    elif x=="comm1" or x=="comm2" or x=="comm3" or x=="comm":
        communication = x
```

```
elif arg=="comm2":  
    msg_string = "Dear user, need your attention here. The water tank  
                \n\nIn the initial phase of the project you chose to  
                \n\nJust click on the Turn Off button to switch off  
                \n\nYou can also choose other 2 options ie Direct Li
```

```
elif arg=="comm3":  
    msg_string = "Dear user, need your attention here. The water tank  
                \n\nIn the initial phase of the project you chose to  
                \n\nLog in and then switch off the motor. You can al
```

```
elif arg=="stopped" or arg=="stop":  
    msg_string = "Congrats user, one cycle of the autonomous project:  
                \n\nWishing you good Luck for the rest of the day. Y
```

```
#whatsapp message  
client.messages.create(  
    from_='whatsapp:'+cred.FROM_,  
    body=msg_string,  
    to='whatsapp:'+cred.TO_  
)
```

```
#text (normal) message  
client.messages.create(  
    from_= cred.text_FROM,  
    body=msg_string,  
    to= cred.TO_  
)
```