

(54) Title of the invention : SMART WATER NETWORK OPTIMIZATION TECHNIQUES FOR WATER QUALITY MONITORING AND LEAKAGE MANAGEMENT

(51)

International :G06N002000000,G01N0033180000,G01M0003240000,G05B0013020000,F24F0011630000 classification

(31) Priority

Document :NA

No

(32) Priority

Date :NA

(33) Name

of priority :NA

country

(86)

International

Application :NA

No :NA

Filing

Date

(87)

International : NA

Publication

No

(61) Patent

of Addition

to :NA

Application :NA

Number

Filing

Date

(62)

Divisional to

Application :NA

Number :NA

Filing

Date

(57) Abstract :

Water scarcity is the one of the vulnerable challenges for the society. Water management networks play a major role in water distribution, checking the water quality and identifying the water leakage in the pipes both in underground and above the ground. A centralized control room designed with local IOT computing machine to monitor and identify the leaks in the water distribution networks. Adaptive machine learning algorithm is used for optimization. Here Adaptive learning algorithm used s intelligent swarm optimization algorithm. AI based swarm optimization techniques are used in smart IOT system for detecting the water quality and also identifying the leakages and giving proper solution for the leakage. Presence of human is not necessary, since physical parameters are drawn from the sensors and optimized instantaneously. IoT based system plays a major role for collecting the data from the various sensors and processing the dataTMs and give proper solution for the problems. Data analytics plays a major role in obtaining the accuracy better and better. Since we are soft computing techniques, designed system will learn from its previous mistakes.

No. of Pages : 11 No. of Claims : 7

(71)Name of Applicant :

1)Dr.V.P.GLADIS**PUSHPARATHI**

Address of Applicant :Associate

Professor Department of CSE

Velammal Institute of Technology

Velammal Knowledge Park, Chennai-

Kolkata Highway, Panchetti Post 601

204 Ponnari Taluk, Thiruvalur District,

Chennai Tamil Nadu India

2)Dr.M.SUDHA**3)Dr. AMANULLAH. M****4)Dr.K.CHINNUSAMY****5)DR.J.S.LEENA JASMINE**

(72)Name of Inventor :

1)Dr.V.P.GLADIS**PUSHPARATHI****2)Dr.M.SUDHA****3)Dr. AMANULLAH. M****4)Dr.K.CHINNUSAMY****5)DR.J.S.LEENA JASMINE**