Pseudocode for optimizing the system design of C_{pmk}-TSS-n is shown below.

Algorithm: Optimization of the system design of C_{pmk}-TSS-n.

User Interface

fluidPage (**Input, Output**)

Input: Regulation parameters c_{AQL}, c_{RQL}, α, β, g, h, and m

Incremental values $a = 1$, $b = 1$, $c = 0.0001$, $Tol = 0.000001$

Output: Optimal system design n_N, $n_T (= mn_N)$, k

Server

Initiation: $\mathrm{ASN}[1] = 3$; $n_N[1] = 1$; $k[1] = 0.0001$

1: **FOR** $i = 1$ to 1000 **do**

$\mathrm{ASN}[i+1] \leftarrow \mathrm{ASN}[i] + a$

2: **FOR** $j = 1$ to 1000 **do**

$n_N[j+1] \leftarrow n_N[j] + b$

3: **FOR** $q = 1$ to 100000 **do**

4: $k[q+1] \leftarrow k[q] + c$

5: **CALCULATE** $\mathrm{ASN}\left(n_N[j+1],\ n_T,\ k[q+1] \middle| c_{\mathrm{AQL}}, g, h, m\right)$

6: **IF** $\mathrm{ASN}\left(n_N[j+1],\ n_T,\ k[q+1] \middle| c_{\mathrm{AQL}}, g, h, m\right) - \mathrm{AFN}\left[i+1\right] \le Tol$ **THEN**

7: **CALCULATE** $\pi_a\left(n_N[j+1],\ n_T,\ k[h+1] \middle| c_{\mathrm{AQL}}, g, h, m\right)$

8: **IF** $\pi_a\left(n_N[j+1],\ n_T,\ k[h+1] \middle| c_{\mathrm{AQL}}, g, h, m\right) - (1-\alpha) \ge Tol$ **THEN**

9: **CALCULATE** $\pi_a\left(n_N[j+1],\ n_T,\ k[h+1] \middle| c_{\mathrm{RQL}}, g, h, m\right)$

10: **IF** $\pi_a\left(n_N[j+1],\ n_T,\ k[h+1] \middle| c_{\mathrm{AQL}}, g, h, m\right) - (1-\alpha) \ge Tol$ **AND** $\pi_a\left(n_N[j+1],\ n_T,\ k[h+1] \middle| c_{\mathrm{RQL}}, g, h, m\right) - \beta \le Tol$

11: **BREAK**

12: **END FOR**

13: **END FOR**

14: **END FOR**