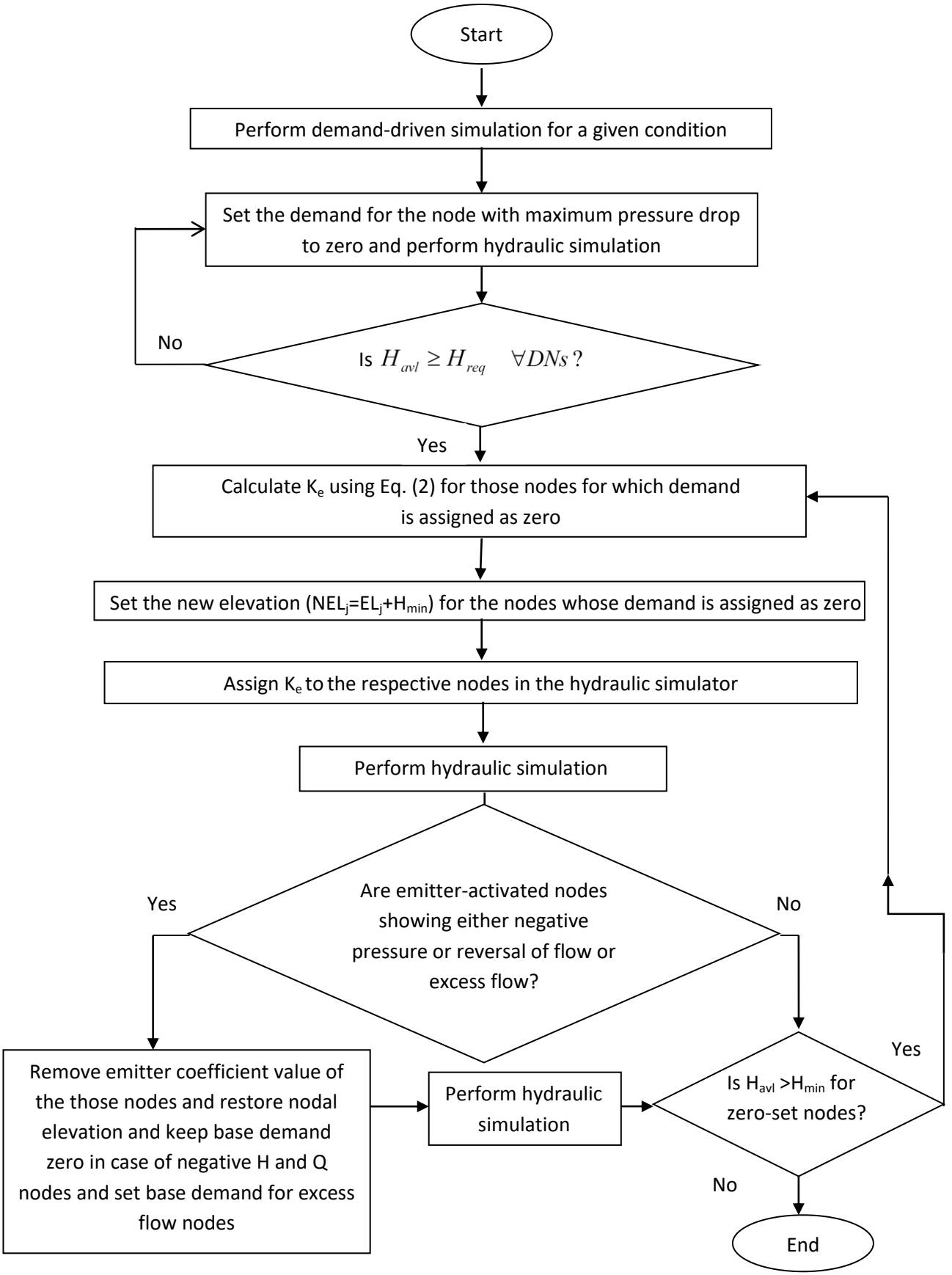
Start
Perform demand-driven simulation for a given condition
Set the demand for the node with maximum pressure drop to zero and perform hydraulic simulation
No
Is $H_{avl} \geq H_{req} \quad \forall DNs$?
Yes
Calculate K_e using Eq. (2) for those nodes for which demand is assigned as zero
Set the new elevation (NEL_j=EL_j+H_{min}) for the nodes whose demand is assigned as zero
Assign K_e to the respective nodes in the hydraulic simulator
Perform hydraulic simulation
Are emitter-activated nodes showing either negative pressure or reversal of flow or excess flow?
Yes
No
Remove emitter coefficient value of the those nodes and restore nodal elevation and keep base demand zero in case of negative H and Q nodes and set base demand for excess flow nodes
Perform hydraulic simulation
Is H_{avl} >H_{min} for zero-set nodes?
Yes
No
End