

# The LNN-GNDO-SQP Algorithm

## GNDO

Start

Initialize population

Calculate fitness of each individual and achieve the best solution ( $x_{Best}$ )

Generate  $\alpha \in (0,1)$

If  $\alpha > 0.5$

No

Exploration

Yes

Exploitation

Select ( $x_{Best}$ ) and calculate  $M, \mu, \delta$  and  $\eta$  to perform local exploitation

$t < \text{Max. Iteration}$

$t = t + 1$

Perform global search strategy by using Eq (38) – Eq (41) to update the position of individual.

$t = \text{Max. Iteration}$

Population of n best solution is obtained

## SQP

Start

Initialize the best weights obtained by GNDO

Evaluate Fitness

Significant Progress?

No

Weights are updated as per steps increment in SQP

Yes

Termination criteria achieved

Display best individual

End

