NOMENCLATURE

S1 = Substation 1
S2 = Substation 2
SW1 = Switch 1
SW2 = Switch 2
β = Random number
P = Active power
Q = Reactive power
p.f. = Power factor
r = Resistance
x = Reactance
|V| = Voltage magnitude
δ = Voltage angle
Adn = Adjacent node
Adb = Adjacent branch
MF = Memory location From
MT = Memory location To
ε = Tolerance
I = Current
TPL = Total active power losses
TQL = Total reactive power losses
f = Supply frequency
Min. = Minimum
Max. = Maximum
Lsf  =  Loss factor
RDS  =  Radial Distribution System
PGSA =  Plant Growth Simulation Algorithm
GA   =  Genetic Algorithm
Br. No. =  Branch Number
N. No. =  Node Number
Mag. =  Magnitude
Ang. =  Angle
pu   =  per unit
LB   =  Load Balance
S    =  Apparent power
PLI  =  Power Loss Index
VR   =  Voltage Regulator
AVB  =  Automatic Voltage Booster
Lf   =  Load factor
nb   =  Number of branches
nd   =  Number of nodes
SE   =  Sending End
RE   =  Receiving End
deg. =  Degrees
Ploss =  Real power loss
Qloss =  Reactive power loss