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LIST OF SYMBOLS

V	Volt
I	Current
R	Resistance
P	Active Power
Q	Reactive Power
C_i	Fuel cost Function
a, b & d	Generator fuel cost characteristic
P_G	Real power generation
Q_G	Reactive power generation
P_D	Real power Demand
P_L	power Losses
B_{ij}	B-coefficient to calculate the power loss formula
L	Lagragian multiplier
λ	Lambda
p_d	Particle position
v_d	Particle velocity
d	No of Particle
$pbest_d$	The best previous position of particle *d*
gbest	the best particle among all particles represented
iter	No of iteration
ITmax	Maximum No of iteration
ω	is the inertia weight factor
C_1 and C_2	cognitive and social parameters, respectively
$rand_1$ and $rand_2$	random values in [0, 1]
w_{max} and w_{min}	maximum and minimum weight factor
k	No of iteration

LIST OF ABBREVIATIONS

IEEE	The Institute of Electrical And Electronics Engineers
NR	Newton Raphson Method
PSO	Particle Swarm Optimization
IFC	Incremental Fuel Cost
BTU	British Thermal Unit
ITL	Incremental Transmission Losses